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**Identity Integration and Intergroup Bias in the Communication Behavior of
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**Identity Integration and Intergroup Bias in the Communication Behavior of
Asian Americans**

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Dedication

To my parents Hsu Yi-Ming and Lo Ying-Hua

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**Identity Integration and Intergroup Bias in the Communication Behavior of
Asian Americans**

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Traditional studies of ethnic relations focus on racialization between Whites and Blacks, or ethnic stratification between Whites and people of color. The increasingly integrated world has ensured continued movements of humans and goods and the inevitable contacts between people of different cultural background. This dissertation aims at broadening conventional studies of interethnic relations to examine racial attitudes among people who have internalized more than one culture -- i.e. the biculturals and multiculturals. Social psychological research suggests that bicultural individuals are capable of switching between two cultural meaning frames depending on contextual demands. Bicultural individuals vary in how well they integrate the two cultural identities internalized in them -- i.e., their bicultural identity integration levels (BII levels). Their BII levels lead to either culturally congruent or culturally incongruent behaviors among bicultural individuals. The underlying assumption of linguistic intergroup bias indicates that people tend to describe more abstractly observed positive ingroup behaviors and negative outgroup behaviors and describe more concretely

observed negative ingroup behaviors and positive outgroup behaviors. In this study, bicultural Asian American participants are hypothesized to use language of either higher or lower abstraction to describe actions of positive and negative valence performed by either ethnic Asians or European Americans depending on the cultural priming they received and their BII levels. The study results point out the perceived ingroup/outgroup orientation of the bicultural participants towards their coethnics and people of the mainstream culture. Effects of the cultural priming and impact of BII levels are also discussed.

Table of Contents

List of Tables.....	xiii
List of Figures.....	xiv
Chapter 1: Introduction	1
Chapter 2: Literature Review	5
Ethnic Identity and Cultural Integration	5
Acculturation	6
Biculturalism	9
Cultural Frame Switching (CFS)	11
Bicultural Identity Integration (BII)	16
The Significant Role of BII in Cultural Frame Switching (CFS) Behaviors	20
Intergroup Behavior and Prejudice	24
Communication – Carrier of Prejudice	30
Linguistic Categories	32
Linguistic Intergroup Bias	34
Research Questions and Hypotheses	40
Hypotheses	41
Chapter 3: Method	44
Overview	44
Stimulus Materials	45
Cultural Icon Primes	45
Behavioral Illustrations (Photo Stimuli)	45

Scenario Ideas	46
Pilot Studies	49
Pilot Study I and Pilot Study I-a	49
Order of Photos	50
Participants of Pilot Studies I & I-a	52
Pilot Study II and Pilot Study II-a	54
Participants and Procedures (Pilot Study II)	55
Pilot Study II-a	57
Measures	58
Bicultural Identity Integration Scale	58
Linguistic Intergroup Bias	59
Ethnic Attitudes Measure	60
The Experiment Proper	61
Participants	62
Coding	65
Design and Procedures	72
Chapter 4: Results	79
Testing Hypotheses	80
Other Findings	87
Multiple Choice Format – the Main Effect of Event Valence	87
Open-ended Format	87
Chapter 5: Discussion	101

Interpretation of Findings	101
Ethnic Asians as Ingroup.....	101
Cultural Frame Switching (CFS) and Bicultural Identity Integration (BII)	107
Asian Mind versus American Mind	108
Limitations	111
Survey Fatigue	111
Testing	112
Measuring Instrument – BII Measure	112
Selection Bias	113
External Validity	114
Ingroup Preference	114
Intergroup Bias in Cultural Context	115
Implications for Acculturation/Assimilation Research	120
Implications for Using Implicit Measures to Test Biased Attitudes in Cross-cultural Communication Research	121
Directions for Future Research	122
Chapter 6: Conclusion	124
Appendix A: Chinese Cultural Icons	126
Appendix B: American Cultural Icons	128
Appendix C: Example Photo Sets Depicting Socially Desirable Behavior	130
Appendix D: Example Photo Sets Depicting Socially Undesirable Behavior	131
Appendix E: Examples of Open-ended Questions	132

Appendix F: Examples of Multiple Choice Questions	134
References	136
Vita	157

List of Tables

Table 1	Acculturation Outcomes as a Function of Identification with Ethnic and Mainstream Cultures.....	9
Table 2	Hypothesized Language Use of High BII Asian American Biculturals as A Function of Environmental Cues and Observed Behavioral Valence.....	43
Table 3	Hypothesized Language Use of Low BII Asian American Biculturals as A Function of Environmental Cues and Observed Behavioral Valence	43
Table 4	Coding Scheme	67
Table 5	Mean (SD) Abstraction Scores for the Sixteen Conditions (Primes, Participant BII Level, Actor Ethnicity, Event Valence) in Multiple Choice Responses Data	82
Table 6	Mean (SD) Abstraction Scores for the Sixteen Conditions (Primes, Participant BII Level, Actor Ethnicity, Event Valence) in Open-ended Responses Data	84
Table 7	Estimated Marginal Mean Abstraction Scores as A Function of the Protagonist Ethnicity and the Desirability of the Protagonist Behavior	89
Table 8	Estimated Marginal Mean Abstraction Scores as A Function of the Protagonist Ethnicity and the Participant BII Level in Asian and American Cultural Prime Condition	91
Table 9	Estimated Marginal Mean Abstraction Scores as A Function of the Event Valence and the Participant BII Level in Asian and American Cultural Prime Condition	97
Table 10	Analysis of Significant Lower Order Interactions in Open-ended Responses: A Summary of Factorial ANOVA Results of Interaction Effects, Unplanned comparisons	98

List of Figures

Figure 1.	Estimated marginal mean abstraction scores as a function of actor ethnicity and event valence.....	89
Figure 2.	Estimated marginal mean abstraction scores as a function of actor ethnicity and participant BII level under the Asian cultural priming condition	91
Figure 3.	Estimated marginal mean abstraction scores as a function of actor ethnicity and participant BII level under the American cultural priming condition	92
Figure 4.	Estimated marginal mean abstraction scores as a function of event valence and participant BII level under the Asian cultural priming condition	97
Figure 5.	Estimated marginal mean abstraction scores as a function of event valence and participant BII level under the American cultural priming condition	98
Figure 6.	Diagram of low and high BII participants' use of language abstraction under Asian and American cultural priming conditions	109

Chapter 1: Introduction

When I first came to the United States, my mother prepared me a small jar of soil from the yard of our house. It was an old Chinese folk belief that the fragrance of one's hometown soil could keep one away from foul air and evil spirit in a foreign land. I will never forget the taste of the traditional Chinese buns she squeezed into my carryon. I ate them as my first meal in America alone in a hotel room. Never would I imagine that the things so memorable and dear to me could be "stinky" to my children. Now, I take them to see their grandparents during summer vacations. The first thing they uttered when arriving at the airport was "it stinks." They reacted in the same way at the Chinese night markets where I could sample all sorts of local delicacies. It's easier to teach them when they were small. I could tell them repeatedly that they were Chinese. Now, whenever I see them salute to the American flag during the daily flag-raising ceremony at school, and sense their gradual resistance to speaking Chinese, I have to convince myself that my kids are "foreigners." They think of themselves as Americans, and the truth is they are..... (T. H. Jiang, personal communication, June 6, 2007)

Apparently, keeping two cultures integrated is very difficult for these young biculturals. In fact, it is equally demanding for biculturals at different stages of their acculturation trajectories. For example, one Asian American woman said, "I did not fit in..... I did not like being singled out..... I had to wear my sunglasses and I thought that would make it all better" (Willgerodt, Miller, & McElmurry, 2002, p. 473), and a teenage Chinese American confessed that ".....you are both cultures and at the same time, you are

neither” (Benet-Martinez & Haritatos, 2005, p. 1016). Acculturating biculturals are constantly at a crossroad as to how much they are supposed to remain identified with their ethnic culture and how much they do so with the mainstream culture.

Based on the experiences of European immigrants in the United States, assimilation in its classical framework suggested a linear and uniformed path for immigrant groups to slowly integrate into the mainstream culture over generations. Following the classical assimilationist viewpoint, distinctive ethnic traits and ethnic cultural attachment were disadvantages that discouraged ultimate assimilation (Child, 1943; Gordon, 1964; Sowell, 1981; Warner & Srole, 1945; Zhou, 1997; Wildsmith, 2004). The classical assimilation framework was modernized by sociologist Milton Gordon in the mid 1960s. Instead of purporting a direct link between cultural adaptation and economic integration for immigrant groups, Gordon (1964) argued that cultural assimilation or acculturation was only one of the crucial first steps in an immigrant’s adjustment process which might or might not lead to other forms of assimilation. In other words, one must be acculturated first in order to be incorporated into the social networks and institutions of the mainstream culture (i.e., *structural assimilation*, Gordon, 1964; Zhou, 1997). Although recognizing the nonlinearity of assimilation processes, Gordon with his modernized conceptualization of assimilation still anticipated the eventual forfeit of an immigrant’s ethnic link and the complete “melting” into the mainstream American culture (Zhou, 2001). Arguably, in America where interracial relations are marked by a long history of ascribing to ethnic division based on color

(Nagel, 1994), acculturation experiences of Asian Americans are more of a historical result than a personal choice of abandoning one's ethnic and cultural baggage.

Being the fastest growing ethnic group in America, Asian Americans made up 4 percent of the US population as of 2000 (Willgerodt, Miller, & McElmurry, 2002; Zhou and Xiong, 2005). They are nonetheless one of the oppressed "visible minorities" (Song, 2004) among people of color. Due to Asians' phenotypical characteristics, they have been the target of biological racism and racialization, suffering from the stereotype of "forever foreigners," outsiders, or aliens (Kim, 1999; Zhou & Xiong, 2005). The interplay of racial relations in America and the force of acculturation have created a unique position of being "marginal people" for many Asian Americans (LaFromboise, Coleman, & Gerton, 1993), a status that shapes their cognitive development and influences their behaviors. For Mr. Jiang's children in the opening episode, one wonders whether they will grow up to be an assimilated immigrant – an American, an integrated bicultural – a Chinese American, a separated immigrant – identifying only with her ethnic culture or a marginalized immigrant identifying with neither (Berry, 1987).

The question is what do these identities mean to these bicultural individuals? How does assuming different identities influence their interactions with people associated with them as members of the mainstream culture or as members of their original ethnic culture? The current study explores whether Asian Americans' perceptions of ethnic identities influence how they interact with people of their ethnic background and people of the mainstream culture (i.e., Americans). The focus will be on manifested communication behaviors of bicultural Asian Americans, which presumably betray the

implicit racial attitudes they have toward their ethnic culture and the mainstream culture. In the process of tapping the implicit attitudes of Asian Americans towards identities, the question of who composes the ingroup and outgroup for most Asian Americans is expected to be answered. The answer should help elucidate Asian Americans' communication behaviors in interacting with people of their ethnic and the mainstream cultures. To set the theoretical framework for this dissertation, the next section offers a broad review of the formative processes of ethnic identity and acculturation for bicultural individuals.

Chapter 2: Literature Review

Ethnic Identity and Cultural Integration

In his speech to the Viennese Society of B'nai B'rith (1926), Freud commented on his Jewish background and his relationship to Jewry. Referring implicitly to *identity* in its cultural and ethnic sense, Freud explained that one's national and cultural bonds included both unconscious emotions and the conscious awareness of one's inner identity, which he described as the "safe privacy of an inner mental construction" (p. 274). In his book *Youth, Identity and Crisis*, Erikson (1968) reviewed the concept of identity and how it was defined by social scientists. He argued that Freud's use of "obscure emotional forces" in his 1926 speech (as quoted in Erikson, 1968, p. 21) carried the meaning of a unity between personal and cultural identities. Erikson (1968) described such identity solidarity as "a deep communality known only to those who shared in it, and only expressible in words more mythical than conceptual" (p. 21).

In contemporary social science, the concept of ethnic identity has been defined in multiple ways. As Phinney (1990) observed, the fact that there is no consensus among researchers on the appropriate way of defining ethnic identity indicates the great complexity of this topic. Some analyze it from the perspective of social identity. For example, Tajfel (1981) defined it as "that part of an individual's self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership" (p. 255). Along the same vein, Moran, Fleming, and Manson (1999) related ethnic identity to a person's perceived strength of his or her connection to an ethnic group. Some frame ethnic

identity in terms of cultural emphases such as language, behavior, values, and knowledge of ethnic group history (Rogler, Cooney, & Ortiz, 1980). Rotheram & Phinney (1987) defined it with a focus on membership traits to include cognitive, affective and behavioral characteristics of individuals due to a sense of belonging to an ethnic group. However one's ethnic identity is defined, the issue of ethnic identity is most salient and meaningful in situations where there exist two or more ethnic groups over a period of time (Phinney, 1990). In such situations, what normally happens is acculturation of the minority cultures into the dominant culture.

Acculturation

Redfield, Linton, and Herskovits (1954) defined acculturation as a process of adaptation to a new environment resulting from the contact of two independent cultures. Seen as a process, acculturation is defined broadly as “change and adaptation that results from continuous contact between those of different cultures” (Berry, Kim, Power, Young, & Bujaki, 1989). As with ethnic identity, the concept of acculturation demands for an agreed-on interpretation among researchers (Keefe, 1980). There are two major theoretical paradigms and models in the acculturation literature. The first is a linear, bipolar, or unidimensional model (Nguyen & Eye, 2002; Phinney, 1990). This model comports with the melting pot concept (Nagel, 1994; Pham & Harris, 2001). The underlying assumption is the ultimate de-ethnicization and inevitable assimilation of the minority groups into the mainstream culture. Hence, the degree or process of acculturation is evaluated along a continuum or trajectory with being acculturated on one extreme and not acculturated on the other. In addition, the bipolar model assumes the

weakening of one's ethnic identity corresponds with the strengthening of their involvement with the mainstream society (Nguyen & Eye, 2002; Phinney, 1990). The model's assumptions of an "either-or" relationship between the two contacting cultures and its favoring of the dominant culture have been the focus of criticism (Nguyen & Eye, 2002). These assumptions are problematic in the following ways. First, the model proposes a mutually exclusive involvement with either the ethnic culture or the mainstream culture. A more appropriate approach to evaluating an individual's acculturation is to assess his or her adaptation to the mainstream culture and retention of the ethnic culture separately. That is, it is possible for an acculturating individual to be involved in both cultures simultaneously (Nguyen & Eye, 2002; Pham & Harris, 2001). Second, the bipolar model implies a bias towards assimilation into the mainstream culture. This favoring of the mainstream culture echoes the underlying assumption of the "cultural deficit" model. Formulated during the time of the War on Poverty and the compensatory education programs in the mid-sixties, the cultural deficit model claimed the superiority of the mainstream culture and blamed the structural inferiority of the minority cultures for perpetuating poverty and deprivation in American society (Baratz & Baratz, 1970; de Anda, 1984; Moynihan, 1965).

An alternative acculturation paradigm, the bidimensional model, was advanced to address the problems inherent in the bipolar model. Widely cited in the acculturation literature, Berry's bidimensional model is one of the most extensive and well-regarded acculturation paradigm, according to which acculturation is conceived as a product of two independent processes (Berry, Kim, Minde & Mok, 1987). As indicated earlier, it

is necessary to consider an acculturating agent's relationships with both the ethnic and mainstream cultures, which compose the two dimensions of the bidimensional model. In addition, development of these two relationships may be independent, like a dual socialization process (de Anda, 1984). Based on the distinction that enculturation enables individuals to learn about their ethnic cultures while acculturation facilitates ethnic minority individuals' assimilation into the mainstream culture (Zimmerman, Ramirez-Valles, Washienko, Walter, & Dyer, 1996), an acculturating individual in Berry's bidimensional model can be said as being enculturated in both the ethnic and mainstream cultures simultaneously. As such, moving along the two dimensions of identification with the ethnic culture and that with the mainstream culture, an acculturating individual has four strategies of coping with a dual enculturation process. That leads to four acculturation outcomes depending on varying degrees of overlap between the ethnic and the mainstream cultures and on the extent of one's identification with these cultures (see Table 1). The first outcome is *integration* or biculturalism, in which the individual has strong identification with both cultures. The second is *assimilation*, in which one weakens ties with the ethnic group and assimilates into the mainstream culture. The third is *separation*, in which we see a strong identification with the ethnic group, but a weak identification with the mainstream culture. The last is *marginalization*, in which there is little identification with neither group (Pham & Harris, 2001).

Table 1

Acculturation Outcomes as a Function of Identification with Ethnic and Mainstream Cultures

Identification with mainstream culture	Identification with ethnic culture	
	Strong	Weak
Strong	Integration	Assimilation
Weak	Separation	Marginalization

Biculturalism

The idea of an individual being encultured in two cultures and being able to move in and out of two distinct cultures leads to the concept of biculturalism. LaFromboise, Coleman, and Gerton (1993) summarize five models of second-culture acquisition or bicultural contact. The first model is *alternation*, which closely resembles biculturalism. Based on the alternation model, a bicultural individual not only knows and understands two different cultures, but is also capable of altering behavior to fit the demand of a particular social and cultural context, a phenomenon similar to code-switching in bilingualism (Saville-Troike, 1981). The *assimilation* model of bicultural contact is identical to Berry's strategy of assimilation, in which a person gradually integrates into the mainstream culture while weakening his or her original ethnic identity. The *acculturation* model is very similar to the assimilation model, differing only in terms of how the members of the minority group are perceived by the dominant society. That is,

in the assimilation model, individuals of the minority culture will ultimately become “full members” of the mainstream culture, whereas in the acculturation model, members of the minority culture will always be seen as merely “competent participants” in the mainstream culture (LaFromboise et al., 1993, p. 397). Notably, the difference between the acculturation model and the assimilation model is significant because it captures the different processes of integration between the people of color and the ethnic Whites into the American mainstream culture. It is argued that the model of acculturation reflects the acculturation experiences of Native Americans, Asian immigrants, Blacks, and Mexicans, whereas the model of assimilation epitomizes the acculturation experiences of European immigrants and their descendents. That is, while ethnic Whites eventually become full members of the mainstream culture, the people of color are branded as “forever foreigners,” and “aliens” (Kim, 1999; Zhou & Xiong, 2005). The fourth and fifth bicultural contact models are ideals rather than depictions of reality. The *multicultural* model promotes cultural diversity in which an individual may develop a positive identity with both the ethnic culture and the mainstream culture through engaging in institutional sharing with members of other cultural groups. The *fusion* model also touts a cultural pluralism in which all cultures fuse together to form an indistinguishable new culture (LaFromboise et al., 1993). LaFromboise et al. argued that an individual will experience the least difficulty if he or she acquires bicultural competence and becomes a true bicultural, as in the alternation model. There are many facets to being “competent” in two or more cultures, which are beyond the scope of the current discussion. However, the ability to appropriately switch between two cultural paradigms is crucial to successful

living in two cultures, a phenomenon captured by the concept of cultural frame switching (CFS) (Hong, Morris, Chiu, & Benet-Martinez, 2000).

Cultural Frame Switching (CFS)

In her discussion of factors that facilitate the bicultural socialization process, de Anda (1984) pointed out the importance of adopting the cognitive style and problem-solving skills of the mainstream culture. She emphasized an individual's ability to switch between the dominant cognitive style and an entire repertoire of other cognitive approaches, depending on the demand of the environment. LaFromboise et al. (1993) mentioned the ability of shifting in cognitive and perceptual processes and linguistic code-switching in bicultural individuals. Such a switching capability is more of a survival necessity than an extraordinary skill in a bicultural individual. According to Nagel (1994), an individual's ethnic identification changes in accordance with different situations and audiences encountered, which is common for a person living in more than one culture. Psychologists at different times have emphasized that ethnic identity as a social construct should be viewed as multidimensional and dynamic (Christian, et al., 1976; Rosenthal & Hrynevich, 1985; Phinney, 1990; Negal, 1994; Yip & Fuligni, 2002; Yip, 2005). That is, there are multiple aspects to one's ethnic identity and part of the ethnic identity becomes salient in response to the contextual demands. Hong, Morris, Chiu, Benet-Martinez (2000) called the capability to shift between cultural identities *frame switching*. Bicultural individuals have two cultures internalized in them, and which cultural paradigm is salient depends on contextual cues. During the past few years, Hong and her colleagues have run a series of studies to explore the phenomenon of

cultural frame switching for bicultural individuals (Hong, Chiu, & Kung, 1997; Hong et al., 2000; Hong, Benet-Martinez, Chiu, & Morris, 2003). In related studies, Benet-Martinez and her colleagues have identified the construct of bicultural identity integration (BII) (Benet-Martinez & Haritatos, 2002; Benet-Martinez, Leu, Lee, & Morris, 2002; Benet-Martinez & Haritatos, 2005) which influences a bicultural's frame switching behavior.

Hong, Morris, Chiu, & Benet-Martinez (2000) conducted a series of studies testing how contextual cues could activate certain cultural constructs, which in turn affect human behaviors in certain ways. Construct activation is the focus of the priming technique, which refers to activation of a construct through exposure to an object or a word (i.e., cue or prime) related to the construct, (Bargh, Chen, & Burrows, 1996; Higgins, 1996; Hong et al., 2000). The effects of priming rely on carry-over of one activated construct to other linked constructs (Anderson, 1976; Bargh, et al., 1996; Hong et al., 2000). For example, Carver, Ganellen, Froming, and Chambers (1983) found that activation of hostility led participants to perceive more hostility in another person and increased the likelihood for participants to behave in a hostile way. In one of their experiments, the priming manipulation was achieved by exposing participants to either the hostility-related primes or neutral primes. Participants in both priming conditions watched a short video depicting how a businessman reacted to his secretary's procrastination in making his travel arrangement. In the hostility-related priming condition, both the verbal and nonverbal expressions of the businessman indicated anger and annoyance. In the neutral control condition, the businessman behaved in a calm

manner both verbally and nonverbally. After viewing the film, participants were involved in an ostensibly irrelevant task of person perception. They were asked to read paragraph descriptions about a protagonist whose behaviors were ambiguous regarding the element of hostility. For example, participants might read that a person “was refusing to pay his rent until the landlord had his plumbing repaired” (p. 409). They were instructed to complete some rating scales asking about the characteristics of the protagonist. The results showed that participants in the hostility-related priming condition rated the stimulus person as being more hostile than those in the neutral condition.

In another experiment by Carver et al. (1983), participants were involved in a learning task. The “teacher” participants were instructed to administer shocks to the “learner” participants whenever the latter answered a question incorrectly. The priming manipulation came immediately before every learning-punishment session. The teacher participant was asked to complete a scrambled sentence task unrelated to the ongoing experiment while waiting for the arrival of the student participant (a confederate who was always late for the experiment). The task required the participant to form a sentence rapidly by picking three out of four words presented in each item. In the hostile priming condition, 80% of the items contained hostile contents, such as “hits he her them” (p. 413). In the neutral priming condition, 80% of the items contained hostility-free contents, such as “the door open fix” (p. 413). The results showed that participants exposed to hostility priming stimuli gave shocks of higher intensity than those exposed to neutral priming stimuli.

Based on the concept of priming effects and construct activation, Hong et al. hypothesized that accessibility of a particular piece of cultural knowledge was decisive in influencing a bicultural individual's subsequent perception and behavior. In their studies, they used bicultural Chinese students in Hong Kong as participants. Hong Kong is a Westernized city and a former British-administrated territory where young people have constant and ready contacts with both Chinese and Western cultures. Hong used cultural icons as primes to activate different cultural meaning frames in their bicultural Chinese participants. It was predicted that with both Chinese and Western cultures internalized in them, these biculturals were able to engage in cultural frame switching when prompted by different primes. To test their hypothesis, the participants were asked to complete an interpretive task after exposure to images of either American (e.g., American flag, Superman, and Capitol Building) or Chinese (e.g., a Chinese dragon, a Chinese opera singer, and the Great Wall of China) cultural icons. In their studies, the Hong Kong undergraduate student participants were randomly assigned to either a Chinese culture priming condition, an American culture priming condition, or the control condition. Participants in the Chinese culture priming condition were shown pictures of Chinese icons, and those in the American culture priming condition were shown pictures of American icons, whereas those in the control condition were shown drawings of geometric figures or landscapes. Following the priming, participants were asked to complete an interpretive task. The interpretive task involved making a causal attribution (Jones & Nisbett, 1971; Kelly 1967; Kelly 1971). Fundamentally, human beings are motivated to understand the behaviors of themselves and others by attributing causes and

implications to observed events and actions. In addition, it is well documented in cross-cultural psychology that cultural differences have an impact on attribution judgment, with Westerners relying more on internal or dispositional causes while East Asians rely more on external or situational causes (Choi, Nisbett, & Norenzayan, 1999; Menon, Morris, Chiu, & Hong, 1999).

The attributional stimulus material used in Hong's studies was an animated display of swimming fish adapted from Morris, Nisbett, and Peng's research (1995). Specifically, the display showed a realistic picture of a single fish swimming in front of a school of fish. Participants were asked to indicate on a Likert-type scale why the fish was swimming in front of the group. The scale was a continuum with one end denoting an internal cause (e.g., wanting to be a leader) and the other end denoting an external cause (e.g., being chased by the other fish). Based on the cross-cultural causal attribution studies, Hong and colleagues (2000) expected the bicultural participants to differ in their attribution ratings depending on which cultural meaning frames were activated through exposure to different culture cues. As predicted, the bicultural participants tend to make external attributions when primed with Chinese culture cues and make internal attributions when primed with American culture cues. That is, these biculturals engaged in cultural frame switching in accordance with the situational demand.

In a separate study, Hong and colleagues (2000) partially replicated the priming effect found in their earlier experiments. The participants (Hong Kong Chinese high school students) were randomly assigned to one of three priming conditions, similar to previous experiments – a Chinese culture priming condition, an American culture

priming condition, or a control condition. One variation in this later study was its focus on making causal attributions for human behaviors. Rather than viewing the stimulus material of animated swimming fish, the participants read a story about an overweight boy who did not abide by a physician's advice on diet. At a dinner buffet with his friends, the boy consumed a piece of rich cake when it was offered. Participants were asked to make causal attributions for the boy's weight problem and the reason why the boy ate the cake. That is, they were asked to indicate the degree to which the boy's overweight problem could be attributed to personality dispositions (e.g., lack of self-control) and the degree to which external reasons explained why he ate the cake (e.g., peer pressure from friends). Although participants in the three priming conditions did not differ on internal attribution ratings, participants in the Chinese culture priming condition were more inclined to interpret the boy's problem and behavior in terms of external factors. Hong et al. concluded that the study results support the argument of Choi, Nisbett, & Norenzayan (1999) on relationships between culture and attribution, which says that an individual's cultural influences on behavioral attributions pertain more to the differential emphasis on the external social factors than to the differential emphasis on the internal dispositional factors. In addition, the results showed that the findings of Hong et al.'s previous studies were replicable – i.e., frame switching in biculturals could be facilitated by activating either of the two internalized cultures through priming.

Bicultural Identity Integration (BII)

Building on the studies of Hong et al., Benet-Martinez, Leu, Lee, & Morris (2002) pointed out in their research the significant role of bicultural identity dynamics in the

process of cultural frame switching. Precisely, one's bicultural identity plays a moderating role between cognitive processing and the behavior of bicultural individuals. Bicultural identity dynamics were operationalized as the degree of integration between two cultural identities possessed by a bicultural individual, or *bicultural identity integration* (BII). As defined by Benet-Martinez et al., a bicultural individual can have either high or low BII depending on the extent to which they perceive their dual identities to be compatible or integrated on the one hand or conflicting or oppositional on the other. Based on the assumption that not all biculturals would engage in cultural frame switching in a unitary way, they proposed that degree of BII, (i.e., perceptions of bicultural compatibility or opposition), would have an impact on biculturals' frame-switching behavior. Conceivably, high BII biculturals should react to external cues in a culturally congruent manner, since they perceive their two cultural orientations as integrated and in harmony. On the other hand, low BII biculturals would react to external cues in a culturally inconsistent way because they see their two internalized cultural views to be in opposition. Initially, in a replication of Hong et al.'s (2000) causal attribution studies, Benet-Martinez and colleagues tested their hypotheses on high and low BII biculturals' frame-switching behaviors. The results supported their hypotheses mentioned earlier. That is, high BII Chinese American biculturals behaved in a culturally congruent manner, making more internal attributions for behavior in the American priming condition than in the Chinese priming condition. On the other hand, low BII Chinese American biculturals behaved in a prime-resistant manner, making weaker internal attributions in the American prime condition than in the Chinese prime condition.

Initially, Benet-Martinez used a preliminary single-item measure, the Bicultural Identity Integration Scale – Pilot Version (BIIS-P) to assess participant's BII levels. They further refined the BIIS-P to a multi-item measure of BII – Bicultural Identity Integration Scale –Version 1 (BIIS-1; Benet-Martinez, 2003; Benet-Martinez & Haritatos, 2005). In the process of creating the multi-item measure, Benet-Martinez and colleagues found that the two components of BII, *cultural conflict* (i.e., oppositional vs. harmonious) and *cultural distance* (i.e., dissociated vs. fused), were independent constructs. They have also identified such variables as personality dispositions, acculturation stressors, and acculturation orientation to be antecedents and predictors of cultural distance and cultural conflict which determined a bicultural individual's BII level. Dispositional traits such as neuroticism, agreeableness, openness, and extraversion appear to play a role in the acculturation processes. Conceivably, people who are open-minded, agreeable, easygoing, extraverted and outgoing are less likely to feel stressed when confronted by new experiences, less likely to see conflict in their intercultural encounters, and less likely to feel the demand of the acculturation processes due to their broad interpersonal association. On the other hand, neurotic individuals are more likely to see negativity in their acculturation experiences, and distance and conflict between cultures because of their disturbed and unstable personalities. In addition, acculturation stressors may influence biculturals of various personalities in different ways. That is, biculturals report different experiences in acculturation-related interpersonal relationships, perceived discrimination, feeling of social isolation, and linguistic challenges. Their acculturation orientation is also determined by different

strategies adopted and levels of bicultural competence achieved.

The studies of Benet-Martinez and her colleagues (Benet-Martinez & Haritatos, 2002; Benet-Martinez, Leu, Lee, & Morris, 2002; Benet-Martinez & Haritatos, 2005) are significant also for their inclusion and consideration of individual differences in acculturation and related phenomena, a focus which has been downplayed in cross-cultural scholarship. For example, Kim, Lujan, and Dixon (1998) argued that identity experience should be viewed as the product of open systems which allow for variations within a given ethnic group; each individual should be considered a self-organizing system. Moran, Fleming, Somervell, and Manson (1999) pointed out that studies of ethnic minorities often take what Trimble (1991) referred to as an “ethnic gloss approach” to have overlooked significant differences within ethnic groups. In her review of 70 articles of ethnic identity, Phinney (1990) lamented that the level of concern oftentimes lies in the group rather than the individual. In their review on models of second culture acquisition, LaFromboise et al. (1993) also cited Simther’s (1982) remarks, which argued that most acculturation models had failed to capture or predict individual variation in acculturation. Commenting on bicultural competence, LaFromboise et al. remind us that it is an individual but not a group that becomes biculturally competent, and attention should be paid to the fact that each person proceeds at his or her own pace on different acculturation trajectories. Gradually, there is a shift in cross-cultural psychology from a concentration on cultural differences between groups to a focus on how cultures are negotiated and played out within an individual (Phinney, 1999). Consequently, BII, which takes into consideration individual differences in

degree of bicultural identity integration, is an important addition to the studies of cultural frame switching behavior.

The Significant Role of BII in Cultural Frame Switching (CFS) Behavior

In their studies on boundary conditions for cultural construct activation, Hong, Benet-Martinez, Chiu, & Morris (2003) called for further research into the fascinating and important topic of how culture affects socio-cognitive behavior of individuals. Specifically, more attention should be paid to how such factors as chronic or temporary epistemic motives of an individual, bicultural identity dynamics, and other identifiable factors may affect how cultural information is tapped. In a significant way, the studies of Benet-Martinez et al. (2002) have first acknowledged the important role of bicultural identity dynamics in CFS behavior. The identification of BII allows us to see how individual differences in perception of cultural identities can influence how internalized cultural knowledge is activated or utilized. Pointing out a potential future research direction, Benet-Martinez et al. (2002) called for examining the specific cognitive-affective processes that compel a display of prime-resistant effect in low BII individuals. They hinted about some possible factors, such as distinctiveness and valence of priming cues and participants' awareness of cultural cues. Since the primary goal of Benet-Martinez et al.'s studies was to explore how BII moderated cultural priming, they only speculated on some possible reasons for the reverse priming effects displayed by low BII individuals.

They cited as an example the novel *Portnoy's Complaint* in which the protagonist, a Jewish American, narrated about feeling and acting more Jewish when in a non-Jewish

environment, yet feeling and acting more American while visiting Israel. That is, biculturals who experience cultural dissociations or tensions will engage in “behavioral or affective reactance against the cultural expectations embedded in particular situations” (Benet-Martinez et al., 2002, p. 496). Benet-Martinez and colleagues also suggested that since low BII biculturals tend to see little or no overlap between their two cultures, it is very likely that they would perceive cultural cues to be extremely valenced. In addition, they are inclined to be highly vigilant toward cultural cues, which more often than not lead to contrastive or reverse priming effects (Glaser & Banaji, 1999; Lombardi, Higgins, Bargh, 1987; Martin, Seta, & Crelia, 1990; Phinney & Devich-Navarro, 1997; Sherif & Hovland, 1961; Starck, Schwarz, Bless, Kuber, & Wanke, 1993; Sussman, 2000; Vivero & Jenkins, 1999).

In a sense, the studies of Benet-Martinez and colleagues have suggested the possibility of conflicts when biculturals interact with people from either of the cultures internalized in them. The conflicts may very well result from the incompatibility low BIIs see between their two cultures. After all, do biculturals possess differential attitudes toward their ethnic and the mainstream cultures? Might it be possible that Asian Americans, either with high BII or low BII, hold a prejudiced attitude against ethnic Asians or new Asian immigrants? To answer these questions, it is necessary to look beyond conventional studies of prejudice, which focus primarily on racialization between Whites and Blacks, ethnic stratification between Whites and people of color (Blauner, 1994), or the racial hierarchy with Whites at the top, Blacks at the bottom, and others in between (Kim, 1999). Also, it is necessary to look at intrapersonal cognitive processes to

elucidate the racial attitudes held by bicultural individuals. It might seem counterintuitive to suggest the presence of prejudice between bicultural individuals and people of their ethnic culture, given the compatriot empathic feeling supposedly common to all. A seasoned immigrant should be in the best position to understand the hardship of adjustment required of an Asian sojourner or the difficulty of the initial acculturation demanded of a new immigrant in America. However, various accounts in different literatures have pointed out the ambivalent feelings of bicultural individuals towards their coethnics. Cheng and Yang (1996) relate the frustration experienced by a Japanese American in his observations of new Asian immigrants:

I thought I would never say this. But these new immigrants are ruining things for us, Jim Yamada, a third-generation Japanese American, said in disgust. Asian Americans fought for decades against discrimination and racial prejudice. We want to be treated just like everybody else, like Americans..... We really hated it when people assumed that just because Asian Americans looked different we were foreigners. It took us a long time to get people to see this point, to be sensitized to it. Now the new immigrants are setting us back. People see me now and they automatically treat me as immigrant. I really hate that (p. 305).

Apparently, assimilated Asian Americans may discriminate against new immigrants, attested to by the derogatory term of “FOB” (fresh off the boat) to denote the new arrivals (Pyke & Dang, 2003).

Living under the shadow of stigmatized racial identities, many Asian Americans attempt to avoid stereotypical views by dissociating with their coethnics (Kim, Lujan, &

Dixon, 1998). Normally, U.S.-born or U.S.-raised Asian Americans tend to find themselves in a constant and active effort to distinguish themselves from their coethnics, so as to deflect the “immigrant shadow” (Zhou & Xiong, 2005). By the same token, we see “old world” and “boaters” versus “American born” or “integrationists” to differentiate the newcomers from the assimilated in Arab communities in America (Aswad, 2003). In fact, in the early 20th-century United States, many German-American Jews expressed their distaste for the “foreignness” of the new Orthodox Jew immigrants, blaming their foreignness for having provoked anti-Semitism in America (Taywaditep, 2001). Taywaditep’s in-depth study of gay men’s anti-effeminacy attitudes, revealed a similar sentiment among members in another socially stigmatized group. Due to feeling of marginalization and stigma, gay men hold contempt toward those who act especially effeminate because they serve to reinforce social stereotypes. Along the same vein, among racial minorities, the assimilated biculturals may harbor hostility towards people of their ethnic origin or unassimilated coethnics. Conceivably, the marginalized are trying to avoid “courtesy stigma,” by which people associated with the stereotyped tend to be derogated as well (Goffman, 1963).

If prejudiced attitudes toward ethnic Asians do exist among some Asian Americans, there might be a way to answer the Asian American ingroup/outgroup question posed at the beginning of this dissertation. It might be that bicultural individuals hold very different perceptions of their ethnic or the mainstream cultures depending on how well they integrate the two cultures internalized in them; that is, their BII levels. It might be that bicultural individuals perceive either of their two cultures as an ingroup and

the other as an outgroup. To examine this assumption, it is necessary to identify a form of manifestation through which one may observe different attitudes bicultural individuals might have toward in and outgroup members. Before exploring the specific ingroup and outgroup sentiment possibly held by Asian Americans, it is necessary to understand the general theoretical concepts of intergroup behavior and prejudice.

Intergroup Behavior and Prejudice

Allport (1954) observed that “The human mind must think with the aid of categories.....Once formed, categories are the basis for normal prejudgment. We cannot possibly avoid this process. Orderly living depends upon it” (p. 20). What come along with a predilection for categorizing are generalizations and oversimplification of human experiences and the propensity of prejudice. Allport defined prejudice as “an aversive or hostile attitude toward a person who belongs to a group” (p. 7). With a tendency to go by categorical generalization, human beings need a stereotype, “an exaggerated belief associated with a category,” the function of which is to “justify (rationalize) our conduct in relation to that category” (p. 191). Categorization forms events into clusters and separates people into groups. The separation of people is what leads to intergroup stereotyping and prejudice.

Tajfel (1969, 1982) also believed that social categorization is the key variable in the phenomenon of intergroup behavior. The human tendency to categorize constitutes one of the bases of social group formation. According to Tajfel, the existence of a group takes not only the designations from outside but the internal identification of group members. In addition, group identification needs such components as membership

awareness, value connotations attached to the membership, and an emotional investment in the membership awareness and attached values. Conceivably, in their constant engaging in categorization, people need to be able to see themselves as belonging to their ingroup and separating from some outgroup. This sense of group-belongingness influences how people perceive and define themselves, the essence of Tajfel's social identification model (Turner, 1982). As indicated in earlier discussion of ethnic identity, Tajfel (1981) defines social identity as "that part of the individual's self-concept which derives from their knowledge of their membership of a social group (or groups) together with the value and emotional significance of that membership" (p. 255). The sense of group-belongingness also defines how we feel about others, the ingroup-outgroup division, which is basically the "accentuation of intracategory similarities and intercategory differences" (Tajfel, 1982, p. 21). In order to preserve and enhance a positive social group identity and maximize group differences, individuals are motivated to engage in formation and protection of "a positive group distinctiveness" (p. 24). The distinctiveness, according to Tajfel, is achieved mostly through creation of favorable comparisons with an outgroup. The comparison inevitably leads to ingroup favoritism and outgroup derogation, the underlying assumption of intergroup behavior (Tajfel, Billig, Bundy, & Flament, 1971).

To Tajfel (1970), human beings have what he called a "generic outgroup attitude" formed through socialization (1970). Conceivably, the generic outgroup attitude which dictates people's behavior in intergroup settings is perceived as a part of social norms and values. To Allport, human beings slip easily into ethnic prejudice because the two

essential ingredients of prejudiced feeling – “erroneous generalization and hostility – are natural and common capacities of the human mind’ (1954, p. 17). That is, it is the natural capability of human beings to breed hostile attitude towards an individual based on how they categorize the individual. In addition, human beings have “an insatiable hunger for explanations” (p. 170), the significance of which on group relations is people’s inclination to make causal attributions. Citing Heider’s (1944) attribution theory and a related experiment, Allport explained the human tendency to anthropomorphize or attach a human agency to life encounters, either good or bad. In Heider and Simmel’s experiment (1944), participants were asked to interpret a moving picture-film in which three geometrical figures were moving in different directions. Their findings showed that most participants interpreted the impersonal patterns of the geometrical figures in terms of animated beings. According to Allport, the experiment results illustrated human beings’ proclivity to seek external explanations for life happenings. He further argued that this tendency to interpret behavior and events predisposes human beings to prejudice. That is, people are inclined to attribute motives to human actions, and believe that people are “doing things to one another” (p. 177).

Expanding Allport’s cognitive analysis of prejudice and building on Heider’s attribution theory, Pettigrew (1979) proposed the *ultimate attribution error*, which describes a “systematic patterning of intergroup misattribution,” (p. 464) and is an extension of what social psychologists refer to as the “fundamental attribution error” (Ross, 1977). Fundamentally, attribution theory posits that human beings are “intuitive psychologists” who seek to interpret their own and others’ behaviors and make inferences

about observed events. However, people often make wrong judgment in their social interpretations. Theorists attributed the systematic distortion in judgment to “ego-defensive” biases, a motivational source of bias through which people maintain and enhance their self-esteem (Heider, 1958; Jones & Davis, 1965; Jones & Nisbett, 1971). As a self-esteem enhancer, people often cite internal or dispositional factors for their success and external or situational factors for their failure. Heider (1958) was the first to identify a nonmotivational source of bias and pointed out a social observer’s tendency to overweigh internal personal factors and underweigh surrounding social and situational pressures in interpreting an actor’s behavior. Ross (1977) named this human tendency to make dispositional attributions the *fundamental attribution error*. For example, although a student would like to explain his poor performance by pointing to some external factors, a teacher would tend to draw internal inferences about the student’s situation, such as being lazy or incapable (Jones & Nisbett, 1971). It was found that people were willing to make internal attributions even when situational pressures were obvious (Jones & Harris, 1967). In Jones and Harris’ study, participants were asked to read a pro-Castro essay. Some were told that the essay author had chosen to make the pro-Castro remarks while others were told that the author was made to write this essay under “no choice” conditions. The results showed that even those participants who learned that the writer had composed the essay under external pressures believed that the writer was in favor of Castro.

Adding the element of intergroup interaction to causal attributions, Pettigrew (1979) explained the systematic bias of intergroup misattribution with the concept of

ultimate attribution error. Citing Taylor and Koivumaki (1976), Pettigrew explained that people hold a positivity bias for intimate others and negativity effect for disliked others. As such, we are inclined to make dispositional attributions for positive actions of liked individuals and for negative actions of disliked individuals. Applying to an intergroup situation, the ultimate attribution error refers to attributing internal causes to anti-social behavior of a disliked outgroup and to pro-social acts of one's liked ingroup. As such, the positive behavior of a disliked outgroup member might be "explained away" by one of the following. The person was merely an exceptional case; the person was just lucky or enjoyed some special advantage; the person was exceptionally highly motivated and worked extra harder; or the person's positive act was a consequence of the manipulable situational context or situational factors influenced by others (Pettigrew, 1979). For example, Taylor and Jaggi (1974) conducted a study participated by 30 Hindu office clerks in southern India. The participants were asked to judge both positive and negative behaviors of a Hindu ingroup actor or a Muslim outgroup actor. These actors were behaving either positively or negatively, as a shopkeeper who was being either generous or cheating, a teacher who was either complimenting or blaming a student, a bystander who was either helping or ignoring an injured other or a homeowner who either provided shelter or ignored someone who was caught in the rain. The results showed that many more participants made internal attributions for the same positive behavior when it was performed by a Hindu ingroup actor than a Muslim outgroup actor. In fact, internal attributions were used largely when interpreting positive behavior of a Hindu ingroup actor and negative behavior of a Muslim outgroup actor.

An integration of the ultimate attribution error and the BII leads to the following assumptions about bicultural individuals' intergroup behavioral pattern. If Pettigrew (1979) is correct in his inference of Tajfel's work and in his suggestion that "virtually all human beings are subject to patterned differences in their perceptions of ingroup versus outgroup behavior," (p. 468), one would expect bicultural individuals to commit ultimate attribution errors in different ways depending on who they perceive as an ingroup or outgroup. Based on the earlier discussion on BII and Tajfel's (1981) basic assumptions about intergroup division (i.e., intracategory similarities and intercategory differences), it is argued that the ingroup and outgroup perception of biculturals is likely to be related to their BII levels. Arguably, High BIIs perceive the primed culture (i.e. through environmental cues) as an ingroup culture since they act in a culturally congruent manner and their thoughts and behaviors conform to the primed cultural demands. On the other hand, low BIIs perceive the primed culture as an outgroup culture since they act in a culturally resistant manner in which their thoughts and behaviors contrast the primed cultural demands. If this assumption on ingroup and outgroup perception of Asian Americans holds true, intergroup bias should play a role in their interactions with people of their ethnic and mainstream cultures. As a psychological phenomenon, ingroup favoritism and outgroup derogation is expressed in intergroup interactions. People readily allocate more rewards to ingroup members (Tajfel, 1970), and are more likely to render assistance to ingroup members (Tajfel & Turner, 1982; Perdue, Dovidio, Gurtman, & Tyler, 1990). Not only, intergroup bias is also manifested in verbal communication, which is subtle yet important in transmission and maintenance of stereotypes (Maass,

1999; Ruscher, 1998).

Communication -- Carrier of Prejudice

Ruscher (1998) and her colleagues have conducted numerous studies in an attempt to find out how stereotyping and prejudice are reinforced through everyday communication. In their research, they either observed dyads conversing about an outgroup member, or had one communicator trying to describe an outgroup member to an ingroup member. What they have observed is communicators' tendency to engage in "ingroup promotion and outgroup blame" (Ruscher, 1998, p. 264). Communicators achieved such a purpose by focusing on stereotype-congruent information, introducing specific exemplars into their communications as a kind of "evidence" to justify use of undesirable or prejudiced comments about an outgroup. The cited stereotypic exemplars are supposed to be understood as representative of an outgroup as a whole. That is, the emphasis is not only on outgroup stereotypicality but also homogeneity. However, in contemporary society where outright racism is considered politically incorrect, people may hold prejudiced affect, but simultaneously perceive themselves as advocates of egalitarian principles.

As pointed out by Pettigrew (1979), due to the much changed racial climates, unobtrusive or subtle measures are necessary to replace blatant measures in tapping prejudiced attitudes in interracial or intergroup interaction. Such measures will be necessary to tap potential intergroup bias among Asian Americans. One unobtrusive measurement strategy that has proven useful in this regard is the Linguistic Intergroup Bias model. In accordance with theories of modern prejudice and modern racism, people

exert great efforts to avoid discriminatory statements so as to appear nonprejudiced (Ruscher, 1998). Very rarely do we see people use blatant discriminatory speech in a laboratory setting. Participants attend to impression management, and act in a socially desirable way. Nonetheless, it is within speech acts that evade conscious awareness that people reveal their underlying cognitive perceptions as in Linguistic Intergroup Bias [LIB].

The LIB is a linguistic structure of communication which reflects stereotypic beliefs communicators have about ingroups and outgroups. As briefly mentioned earlier, the basic premise of LIB is that people tend to encode observed behaviors of an outgroup member more abstractly if the behaviors conform to expectations or are negative in valence. On the other hand, for unexpected outgroup behaviors of a positive valence, people tend to describe them in concrete terms. For example, a European American who witnesses an African-American hitting somebody is more likely to describe the observed behavior abstractly as “aggressive” rather than concretely as “hitting” (i.e., the negative behavior of hitting is expected of an outgroup African American and supposed to be treated as an innate quality of the actor). On the other hand, a European American who witnesses an African-American correctly answer a question in class is more likely to describe the event concretely as the African-American “answered the question” rather than as he being “intelligent” (i.e., the observed action is unexpected of the outgroup actor and supposed to be viewed as an isolated event) (Ruscher, 1998). These linguistic tendencies are reversed for encoding behaviors of ingroup members (Maass, Salvi, Arcuri, & Semin, 1989). Before further elaborating on the LIB model, it is necessary to

understand the assumptions of *linguistic categories* in which the premise of the LIB model is grounded.

Linguistic Categories

Semin and Fiedler (1988) proposed four levels of linguistic categories which represent differential cognitive functions. When describing individuals and their behaviors, people's use of language falls into one of those four categories which carry different psychological implications. The categories are organized on a concrete-abstract continuum, from which different social cognitive perceptions can be inferred.

Descriptive action verbs (DAVs) are used as a concrete reference to an observed action with no involvement of observer interpretations. In other words, what is observed is what gets to be described. Examples are verbs such as *talk*, *kick*, and *call*, which have no overt positive or negative connotations. The verbs describe actions that have a clear beginning and end and at least one physically invariant feature inherent in the action. For example, *kick* involves the foot and *call* involves the phone. Besides mere descriptions of observed behaviors, *Interpretive action verbs (IAVs)* involve interpretations of the behaviors. In contrast to the DAVs, IAVs do not have a physically invariant feature. They are verbs that refer to a general class of behaviors. Besides defining actions with a beginning and end, IAVs carry positive or negative connotations. Examples are *threaten*, *encourage*, and *mislead*. *State verbs (SVs)* are used to describe mental or emotional states of Person A in relation to Person B. There involve no concrete references to specific behavioral observations. SVs are nonobservable and describe subjective states of the mind of a subject. With connotative contents, SVs are abstract, hypothetical, and

interpretive, which have no clear definitions of beginning and end. *Love, fear, worry* are examples of SVs. *Adjectives (Adjs)* are the most abstract of the four levels of linguistic categories. They allow for descriptions of Person A in relations to not only Person B but to others. These connotative descriptions of Person A are supposed to be non-ephemeral and cross-situational. With this linguistic category, we can describe a person being *friendly, patient, or stubborn*, and expect the person to demonstrate this quality in relation to many interactants over time.

More significantly, the four linguistic categories have the following psychological implications to influence people's perception of a linguistic description. *Enduringness* is a quality associated with Adjs, which assume a temporal stability, whereas DAVs do not connote stable characteristics in an individual. SVs normally imply a longer duration (e.g., liking) than IAVs, the duration of the latter is confined to within one action (e.g. helping). *Subject informativeness* has to do with the amount of information that can be inferred from each linguistic category. The most abstract level of Adjs tend to convey the most information about a subject described. In fact, the amount of information increases as a function of the abstractness of each category, with DAVs yielding the least information and Adjs the most. *Situative informativeness* refers to the amount of information one can infer from each linguistic category about a specific situation. Contrary to subject informativeness, amount of information about specific situations decreases along the continuum of abstraction. That is, DAVs carry the most situative information whereas Adjs provide the least information about situations. *Verifiability* stands for the degree to which statements containing each of the four linguistic categories

can be verified in terms of the truthfulness of the statements. DAVs contain no interpretation, hence are the easiest to be verified. Verifiability becomes more difficult with statements that contain words in the linguistic categories higher in abstraction and interpretation. *Disputability* is similar to verifiability in the sense that people tend to have more disagreement over propositions contained in statements that include more abstraction and interpretations. Adopting the theoretical assumption and cognitive implication of Semin and Fielder's linguistic category model, Maass and colleagues (1989) emphasized the role of language in the transmission and maintenance of stereotypes in their proposed LIB model.

Linguistic Intergroup Bias (LIB)

As pointed out in the earlier literature review on intergroup behavior, intergroup bias is automatic and natural in human interactions. The underlying assumption of LIB is that social stereotypes are perpetuated through interpersonal discourse in people's subtle, yet biased descriptions of ingroup and outgroup members (Maass, 1999; Maass, Salvi, Arcuri, & Semin, 1989). The biased attitudes are transmitted and maintained through language use in such a way that words of a higher level of abstraction provide a greater amount of information about the protagonist (i.e. *subject informativeness* as discussed earlier) and imply more enduring temporal and situational stability (i.e., implying that the behavior is indicative of a durable disposition, not situational factors). This is significant because it renders different meanings and interpretations to an observed behavior depending on whether the action is performed by an ingroup or outgroup member. For example, when encoding an observed socially undesirable act

(e.g., shoving someone) performed by an outgroup member, one may use language of high abstraction (e.g., “being violent” – Adj). The abstract description of being “aggressive” carries with it the psychological feature of *subject informativeness* and *enduringness*. As such, it may create an impression in the listener that the observed behavioral episode (shoving) is not an isolated incident, and that it very likely will be repeated in the future since abstract description implies that being aggressive is a dispositional trait of the protagonist. On the other hand, the socially undesirable act of shoving someone performed by an ingroup member may be encoded in a concrete fashion (e.g., “pushing or shoving someone”) to indicate that the observed act is transient and circumstantial. By the same token, when encoding an observed socially desirable act (e.g., feeding a stray dog) of an outgroup member, one may use language of low abstraction or in concrete terms (e.g., “giving food to a stray animal” -- DAV) to indicate that the observed behavior is only situation-specific. On the other hand, the same socially desirable act of feeding a stray dog may be described abstractly (e.g., “being kind” – Adj) when performed by an ingroup member to imply the enduringness and repeatability of the observed action. Moreover, the fact that highly abstract words are more difficult to verify (*verifiability*) or disagree with (*disputability*) allows for maintenance of stereotypic beliefs.

To test the proposed LIB, Maass and colleagues (1989) posited that people are likely to encode favorably ingroup and unfavorable outgroup behaviors at a higher level of abstraction than unfavorable ingroup and favorable outgroup behaviors. In addition, the same socially desirable act will be encoded at a higher level of abstraction when

performed by an ingroup member than by an outgroup member. Maass et al. (1989) used historically competitive social groups in Italy as their choice of in and outgroups to test the above hypotheses. Selected were two comparable teams in a yearly horse race in Italy when the experiments were conducted. Each team claimed supporters from a certain section of the city, *contrada*. The traditional horse races were so competitive that antagonistic sentiments were inevitable among members of respective *contrada*. Members of each *contrada* were recruited as participants. In the first experiment, they were shown some visual representation in which a protagonist was performing a certain action. The protagonist was either an ingroup member (someone of their own *contrada*) or an out-group member (someone from a competing *contrada*). The protagonist was shown either as an isolated actor in a noninteractional episode or as interacting with others. The protagonist was engaging either in socially desirable or socially undesirable behaviors. These behaviors could be general or race-specific, such as littering for the former and drugging the opposing team's horse for the latter. The subjects were supposed to choose from four response alternatives which briefly described the behavior of the protagonist in any one episode. The four response alternatives were constructed in a way to correspond with the four levels of abstraction in the linguistic category model. One example of a negative race-specific episode was when A, a member of *contrada* San Giacomo, hits B, a member of *contrada* San Giorgio. Participants would be asked to choose from the four levels of response -- "A hits B; hurts B; hates B; is violent" (Maass, et al., 1989, p. 984). When a member of *contrada* San Giacomo committed horse-drugging the night before a race, participants would have to choose from the following

response alternatives – “drugs the horse of *contrada* San Giorgio; damages the *contrada* San Giorgio; detests the *contrada* San Giorgio; is unfair” (Maass, 1999, p. 83).

In the second experiment with another group of participants, all procedures remained the same except that participants were asked to encode the observed actions freely in their own words rather than selecting from a list of brief descriptive statements. Precisely, they were asked to engage in a sentence completion task. For example, next to a cartoon scenario, the following sentence was presented: “A member of the *contrada* San Giacomo,.....” (Maass et. al, 1989, p. 984). The use of a sentence completion task was to ensure designation of the episode protagonist as the subject of a sentence response. Maass et al. asserted that the inclusion of a free-response procedure potentially increased the external validity by allowing for more alternative interpretations which better resembled the real world situation in addition to reducing the likelihood of an overestimation of the tested linguistic intergroup bias.

The results of the first experiment confirmed the hypothetical assumptions that people use language at a higher level of abstraction when describing undesirable outgroup and desirable ingroup behaviors, whereas more concrete language is used when encoding desirable outgroup and undesirable ingroup behaviors. As in the first experiment, participants in the second experiment described undesirable outgroup behaviors in a more abstract fashion than desirable ones. Such bias was not as strong when encoding ingroup behaviors. Consequently, one might infer that linguistic intergroup bias was more prominent in judging actions of outgroup than ingroup members. We may grant our intimate others the benefit of the doubt by attributing their

negative behaviors to situational factors (Taylor and Koivumaki, 1976). Such benefit of the doubt is by no means readily extended to out-group members (Pettigrew, 1979). In addition, participants in Maass et al.'s study resorted to concrete terms only when presented with episodes that involved expectancy-incongruent behaviors of outgroup members. Conceivably, one may imagine that people's motivations are likely to be stronger when trying to communicate how an unexpected behavior performed by an outgroup member is only isolated and situation-specific.

This last finding is significant because it highlights how LIB applies not only to descriptions of ingroup/outgroup behaviors of positive or negative valence, but also to encoding of actions that are congruent or incongruent with expectancies of ingroup or outgroup members. Maass (1999) supported this argument in a thorough discussion of the possible underlying mechanisms for LIB. She proposed two likely mechanisms. According to motivational theories such as social identity theory (Tajfel & Turner, 1987), LIB serves the function of preserving and promoting one's social identity or ingroup identity. With use of either abstract or concrete descriptions, one may project ingroup favorability and outgroup unfavorability in a way to enhance the positive image of one's own group. The other possible mechanism underlying the LIB is the concept of *differential expectancies*. People tend to use abstract language for expectancy-congruent behaviors. According to Maass, observed behaviors consistent with prior expectancies are usually considered to be stable, enduring, and typical of certain individuals. Not surprisingly, based on the linguistic category model, it is the words at a higher level of abstraction that carry the psychological implication of stability over time.

Accordingly, words of a higher level of abstraction are used to describe socially desirable ingroup behaviors and socially undesirable outgroup behaviors that are presumably stable and expectancy-congruent.

On the question of whether LIB is a result of ingroup protection or differential expectancies, Maass (1999) argued that the LIB is more likely to be the joint function of both mechanisms. The two approaches are not mutually exclusive. Based on the motivational account or the idea of ingroup protection, the focus is on valence of observed behaviors, with abstract language used in positive ingroup behaviors and negative out-group behaviors. For differential expectancies, abstract language is used for behaviors of both ingroup and outgroup members that conform to expectancies. These two mechanisms may coincide in such situations when people hold positive expectations about the ingroup and negative expectations about the outgroup. In this case, abstract language will be used to describe an undesirable (negative valence) behavior of an outgroup member, which also happens to be an expectancy-congruent behavior. Conceivably, it is our natural tendency to expect more desirable and fewer undesirable acts performed by our ingroup members (Howard & Rothbart, 1980). It is exactly this natural tendency that ensures a converging of these two mechanisms in most situations. Only in situations when people's expectancy about an outgroup member is of a positive valence will we see the two underlying mechanisms to predict divergent results. For example, Jews are stereotypically expected to be stingy but relatively friendly (Maass et al., 1989). A Jew's friendly actions may be encoded more concretely by an outgroup member according to the mechanism of ingroup protection since the observed action is

socially desirable. However, it may be described more abstractly under the mechanism of differential expectancies since the behavior is congruent to stereotypical expectations. In this specific instance, the two mechanisms might lead to disparate descriptions of an observed behavior.

Research Questions and Hypotheses

In the opening narration of Mr. Jiang, a hypothetical question was posed. How will Mr. Jiang's children interact whose who perceive them as either an assimilated immigrant – an American, an integrated bicultural – a Chinese American, or a separated immigrant – identifying only with ethnic culture? When does their ethnic identity or bicultural identity come to the fore? Does the salience of either identity influence the way they communicate about either culture? Consequently, how do bicultural individuals interact with people of their culture of origin and people of the dominant culture? Do they hold prejudiced attitudes against either people? Who do they see as their ingroup or outgroup? From the above literature review on intergroup behavior, it is argued that Pettigrew's (1979) ultimate attribution error and Maass et al.'s (1989) LIB are closely related in such a way that the concepts of ultimate attribution error and LIB can be integrated and summarized as follows. People tend to hold outgroup members responsible for bad behaviors and ingroup members responsible for good behaviors; and people tend to expect positively-valenced behaviors from ingroup members and negatively-valenced behaviors from outgroup members and believe such behaviors to be innate characteristics of either group members. Also, as discussed earlier, all human beings are prone to making intergroup misattribution, the ultimate attribution error

(Pettigrew, 1979). As such, it is argued in this dissertation that bicultural individuals are expected to commit ultimate attribution errors. In addition, it is believed that their misattribution is a function of their level of bicultural identity integration which determines to a large extent who bicultural individuals perceive to be ingroup or outgroup (i.e., either the ethnic cultural group or the mainstream cultural group). Moreover, LIB may serve as an implicit indicator of intergroup prejudice biculturals may hold against either their ethnic culture or the mainstream culture. That is, biculturals may communicate differently about their coethnics and people of the mainstream culture depending on whether they perceive the two internalized cultures to be in harmony (either high or low BIIs), which determines who biculturals take as ingroup and outgroup; and their different ways of communicating, believed to be observable in their use of language (LIB), are supposed to reveal their differential racial attitudes.

Hypotheses

The hypotheses listed below were derived from an integration of the arguments stated above and Benet-Martinez et al.'s findings that high BII biculturals behave in a prime-consistent manner and that low BII biculturals exhibit prime-resistant behavior.

H1: High BII Asian American biculturals will communicate an observed socially desirable behavior at a higher level of abstraction when it is performed by an ingroup member than by an outgroup member, with the primed culture seen as an ingroup.

H2: High BII Asian American biculturals will communicate an observed socially undesirable behavior at a lower level of abstraction when it is performed by an

ingroup member than by an outgroup member, with the primed culture seen as an ingroup.

H3: Low BII Asian American biculturals will communicate an observed socially desirable behavior at a higher level of abstraction when it is performed by an ingroup member than by an outgroup member, with the prime culture seen as an outgroup.

H4: Low BII Asian American biculturals will communicate an observed socially undesirable behavior at a lower level of abstraction when it is performed by an ingroup member than by an outgroup member, with the primed culture seen as an outgroup.

The above hypotheses are illustrated and summarized in the tables below (see Table 2 and Table 3).

Table 2

Hypothesized Language Use of High BII Asian American Biculturals as a Function of Environmental Cues and Observed Behavioral Valence

Environmental cues	Behavioral valence	
	Socially desirable behavior	Socially undesirable behavior
Asian prime	High abstraction (<i>Asian ingroup</i>)	Low abstraction (<i>Asian ingroup</i>)
American prime	High abstraction (<i>American ingroup</i>)	Low abstraction (<i>American ingroup</i>)

Table 3

Hypothesized Language Use of Low BII Asian American Biculturals as a Function of Environmental Cues and Observed Behavioral Valence

Environmental cues	Behavioral valence	
	Socially desirable behavior	Socially undesirable behavior
Asian prime	Low abstraction (<i>Asian outgroup</i>)	High abstraction (<i>Asian outgroup</i>)
American prime	Low abstraction (<i>American outgroup</i>)	High abstraction (<i>American outgroup</i>)

Chapter 3: Method

Overview

All studies (four pilot studies and the experiment proper) reported in this dissertation project were conducted in an online format. The pilot studies were conducted partly to prepare the stimulus materials. In addition, one of the pilot studies examined the viability of the response alternatives of the multiple choice questions used in the real study. The propositions of the dissertation are that depending on the degree of cultural integration (i.e., BII) and the existing environmental cultural cues, a bicultural Asian American will use different linguistic devices to describe observed behaviors performed either by people of the dominant American culture or people of their ethnic culture. Specifically, they will use abstract predicates to describe positive acts of an ingroup member and negative acts of an outgroup member, and use concrete predicates to describe negative acts of an ingroup member and positive acts of an outgroup member (i.e. the LIB phenomenon). In addition, high BII biculturals will exhibit LIB behaviors consistent with environmental cues while low BII individuals will perform in an opposite way. To test the propositions, participants were exposed to either Asian or American cultural icons first to activate either their Asian or American cultural frames. They were then asked to view photo sets depicting positive or negative behaviors performed by either Asian or European American protagonists. Their LIB behaviors were evaluated by analyzing their responses to the photo sets (i.e. one-sentence descriptions of the observed actions in the open-ended questions and their answers to the multiple choice questions).

The following sections detail the study design and the measuring instruments used in the current study.

Stimulus Materials

Cultural Icon Primes. Pictures were used as primes to elicit activation of the participants' complementary cultural identities (Hong et al., 2000). Half of the participants viewed Asian cultural icons and the other half American cultural icons. There were eight pictures for each cultural icon prime. The cultural icon primes appeared immediately after the informed consent form and the instruction page. The Asian cultural icons included pictures of calligraphy art, a bowl of rice, a traditional oriental pagoda temple, the *yin/yang* symbol, a traditional oriental paper fan, a *taiko* (traditional oriental drum) team, a teapot set, and a traditional oriental painting of bamboo shoots (see Appendix A). The American cultural icons included pictures of an American cowboy, hamburger and French fries, the Capitol Building, the Sesame Street characters, a Western Rock and Roll band, a football team, the Statue of Liberty, and Mountain Rushmore (see Appendix B).

Behavioral Illustrations (Photo Stimuli). The following design for evaluating participants' intergroup attitude was adapted from Maass, Salvi, Arcuri, and Semin (1989). To assess implicit intergroup attitudes following exposure to the cultural primes, participants were asked to view three-frame photo sequences depicting the behavior of a protagonist (either Asian or European American) in a single-person or interaction situation. The depicted actions were either socially desirable behaviors (positive acts; e.g., teaching students) or socially undesirable (negative acts; e.g., littering) behaviors

performed by either Asians or European Americans in an interactional or a noninteractional situation. In many experiments on LIB, drawings or sketches of cartoons were used as stimulus materials (Maass et al., 1989; Semin, de Montes, & Valencia, 2003; Tanabe & Oka, 2001; Werkman, Wigboldus, & Semin, 1999). Photo sets depicting the actions of actual people were used in the current study to foster a sense of realism. In addition, one of the elements of interest in the current study is ethnicity, which is difficult to depict in cartoon figures without resorting to phenotypical features, such as a long nose for Westerners and slanted eyes for Asians. Such caricature features are most likely to invoke ethnic stereotypes and influence the responses of participants. The construction of the photo stimuli proceeded in several stages, from developing scenario ideas, to photo shooting, editing, formatting and the final arrangement of photos online.

Scenario Ideas. This researcher followed three criteria in developing scenarios for the photo stimuli. First, the scenarios should be unambiguous – i.e., the actions depicted should be readily comprehensible. Also, efforts were made to avoid scenarios that would produce interpretational variability. That is, a scenario idea was considered inappropriate if it would generate two or more different or unrelated interpretations. For example, one of the scenario ideas developed in the early stages depicted a person was jogging, drinking water, and smiling had to be discarded. The scenario might be interpreted as someone being sporty or someone being happy. Since being sporty and being happy could be distinct and unrelated (i.e., one could be sporty but not happy), the scenario might have generated two independent interpretations and hence was not

qualified. On the other hand, scenario ideas which might generate multiple but related interpretations were considered appropriate. For example, one selected scenario depicted a cashier returning a customer the wallet left behind. Participants might interpret the scenario as someone being considerate or someone being kind. Although not identical, the two interpretations were related which made the scenario qualified for being a stimulus photo idea.

The second criterion for scenario selection was that the depicted actions should be easy to perform. All stimulus photos were taken in Okinawa, Japan. The models included in the photo stimuli were pedestrians, shoppers at department stores, church attendees, teachers and students at a local high school and a language center, and tourists. Scenario ideas that were easy to perform put less pressure on these non-professional models and require less effort to prepare props. In addition, for such practical constraints as number of models and expenditure (e.g., monetary donations were made to such institutions as schools and churches for using their facilities and human resources) some of the models made repeated showings in two different photo sets. Scenario ideas that were easy to perform would be less time-consuming for those models who had to act in more than one scene. Repeated models acted in one socially desirable and one socially undesirable scenario depiction. Such an arrangement was made to avoid a situation in which participants recognized the repeated actor and judged the actor to be generally nice if he or she performed socially desirable acts in two photo sets and to be generally bad if he or she performed socially undesirable acts in two separate photo sets. In fact, recognition of repeated actors is fairly unlikely. According to various psychological

reports, human beings are remarkably good at identifying familiar faces, but rather poor at recognizing unfamiliar ones (Liu & Chaudhuri, 2000; Hancock, Bruce, & Burton, 2000). Moreover, models who had to act in different scenarios were properly disguised by the researcher using simple props such as wigs, hats, and eye glasses. According to Gauthier & Tarr (1996), face processing is particularly sensitive to configural changes, transformation of configuration of face parts.

The third criterion was a scenario idea should avoid priming cultural stereotypes as much as possible. As mentioned earlier, the stimulus photos were three-frame photo sequences depicting either socially desirable or socially undesirable behaviors performed by either Asian or European American actors. A total of 48 scenario ideas, 24 socially desirable and 24 socially undesirable actions, were generated. Each scenario was performed by both Asians and European Americans to produce 96 three-frame photo sets. For scenarios depicting interactions, more than one actor was required. Efforts were made to ensure that all models within any given photo set were of the same ethnicity. In addition, to ensure that one scenario would be interpreted the same regardless of the ethnicity of the actor, it was necessary to avoid as much as possible scenario ideas that were apparently culturally stereotypic of either Asians or Americans. For example, a scenario that depicted someone's poor performance at a public speaking class would be interpreted very differently depending on whether the protagonist was an Asian or an American. It is a cultural stereotype to perceive Americans as being outspoken and Asians as being shy and reserved to speak publicly. To summarize, a total of 48 scenarios were generated, including 24 socially desirable and 24 socially undesirable

behaviors. Every scenario was performed by both Asian and American actors, and the 48 scenarios were equally divided in terms of gender of protagonists (i.e., 24 male and 24 female protagonists). Ultimately, a total of 96 three-frame photo sets were taken by the researcher (see Appendix C for an example scenario of socially desirable behaviors and Appendix D for an example scenario of socially undesirable behaviors). Two pilot studies were conducted to select the photo stimuli used in the experiment proper – 64 out of the 96 photo sets created.

Pilot Studies

Pilot Study I and Pilot Study I-a. The 96 three-frame photo sets (every photo set included a sequence of three pictures) were edited and formatted using Microsoft Visio software to create a web-interfaced online survey for the first two pilot studies. The purpose of Pilot Study I and Pilot Study I-a was to select the appropriate photo stimuli to be used in the final study. The goal was to select 64 out of the 96 photo sets, 32 scenarios (16 socially desirable and 16 socially undesirable behaviors) performed by both Asians and European Americans. Half of the protagonists depicted were male and the other half were female. Two criteria were used in making the selection. First, the selected photo sets were those that yielded the most consistent action descriptions without regard to ethnicity (i.e., the majority of the participants gave roughly the same description for an observed act irrespective of the ethnicity of the actor performing it), and the descriptions were similar to what had been intended by the researcher. Second, the selected photo sets were those that yielded the most consistent negativity/positivity judgment without

regard to ethnicity (i.e., the depicted action was considered positive or negative irrespective of the ethnicity of the actor performing it).

Order of photos. Special efforts were made to avoid the possibility that order of the photo sets might influence how participants perceive each observed action (i.e., participants might interpret photo sets of the same scenario differently because they were exposed to a photo set performed by either Asians or European Americans first). In an experiment in which different sessions are conducted, there exists the potential of a carryover effect or session effect (Cummings & Guerlain, 2007; Keppel, 1982). That is, the performance of participants might improve as a result of learning between different sessions or the response to the first stimulus might affect the response to the second (Betta & Turatto, 2006). Therefore, in experimental research, an important precaution commonly taken to minimize carryover between experimental conditions is to *counterbalance* treatment sequences across participants (Evans, Critchfield, & Griffiths, 1991; Thomas, Drobles, & Deas, 2005; Windschitl, Young, & Jenson, 2002). The current study adopted the counterbalancing strategy proposed by Thomas et al. (2005). One of the goals of the reported research was to find out the LIB level in the participants' responses when describing observed actions performed by different actors. It was necessary to minimize the occurrence in which participants exhibited different LIB levels due to their exposure to a scenario performed either by Asian or European American actors first. As such, photo sets were arranged in such an order that half of the participants saw an Asian performed an action first and the other half saw a European American performed the same action first.

Considering that all studies were in an online format, a “two-link” scheme was created to achieve this goal. The scheme included several steps to counterbalance the order in which participants either saw the same action performed by an Asian or a European American first. First, the researcher randomly assigned a number to each scenario (24 socially desirable and 24 socially undesirable actions performed by both Asians and European Americans). The designated numbers went from EP1 to EP24 for European American positive stimulus photos, from EN1 to EN24 for European American negative stimulus photos, from AP1 to AP24 for Asian positive stimulus photos, and from AN1 to AN24 for Asian negative stimulus photos. Second, the researcher arranged the order of the European American stimulus photos by counting forward; that is, ordering the photos from EP1 to EP24 and from EN1 to EN24. The order of the Asian stimulus photos were arranged by counting backward; that is, ordering the photos from AP24 to AP1 and from AN24 to AN1. As such, the European and Asian photos of the same scenario would not appear in close vicinity. In addition, all photos were ordered by following a regular repetition based on the valence of the photos. In doing so, the positive and negative scenarios would interchange in a regular pattern. The first photo order chart (also the first link) was created in which participants would see each scenario performed by one ethnicity first. Third, the same steps were followed to create the second photo order chart (also the second link) which was the mirror image of the first chart but differed only in the ethnicity of the actors. In doing so, participants in the second link would see each scenario performed by the other ethnicity first.

Participants of Pilot Studies I & I-a. Participants of the first two pilot studies were a small group of European Americans ($n = 10$ for each pilot study) recruited from the UT Communication Studies Department participant pool. Both survey studies were conducted online. Pilot Study I contained link I and Pilot Study I-a contained link II. Again, for the purpose of counterbalancing, the orders of the photo sets (scenarios) were identical across the two links, although the protagonist ethnicity in each photo set was exactly the opposite. Group emails were sent out to the students enrolled in several communication courses in Spring, 2008 announcing the extra credit opportunity through participating in a dissertation project. European American students were chosen to be in the two pilot studies for two reasons. The purposes of the two studies were to select the appropriate photo set proper for the final study. The cultural background of participants would not be a moderating factor for such a purpose. Moreover, for a practical concern, European American students are the majority in terms of the ethnic composition in one undergraduate communication class, which ensured better efficiency in completing the pilot studies. A demographic question was included at the end of each survey link asking participants to indicate their ethnic background. This inclusion ensured that only the targeted participants were recruited. In addition, placing the demographic question at the end of the survey reduced the possibility that participants would be cued in to the significance of their ethnicity.

Link I (pilot study I) was posted online first. When the target number was reached (10 European American participants), link I was closed and link II (pilot study I-a) was posted. A URL was included in the group email sent to potential participants.

Students who were interested in the study could access the survey by clicking on the link. The first page of the study was a short consent form which contained the title of the study and a cover story describing the purpose of the study. The two pilot studies were entitled Picture Observation and Impression Formation, and the participants were told that they would contribute to a dissertation study investigating the multiple elements that influence people's impression formation in the process of observing visual images. At the end of the page, participants could start the survey by putting a checkmark next to the statement, "I consent to participate in the study," and clicking on the "next" button. Alternatively, they could discontinue with the survey by exiting the web page or closing the window.

In both pilot studies I and I-a, participants were asked to examine the 96 photo sets and complete two tasks. The first was to view each photo sequence and describe the action depicted. Immediately prior to each photo set, participants were prompted an open-ended question to facilitate a "sentence completion task" (Maass et al., 1989). The question would start with the name of the protagonist to ensure that participants focus their description on the protagonist in each episode (e.g., "In the photo set below, John" for a European American performer, and "In the photo set below, Guoshu....." for an Asian performer; see Appendix E for examples of open-ended questions). In addition, a multiple choice question followed each photo set asking the participants to rate the social desirability of each depicted action on a 5-point scale. 'Very negative' (1) and 'Very positive' (5) anchored the scale ends. Actions receiving a rating higher than 3.5 were considered socially desirable behaviors, and actions receiving a rating lower than 2.5 were considered socially undesirable behaviors. The data of the first two pilot studies

were analyzed together to select 64 photo sets proper for the final experiment (32 scenarios – 16 positive and 16 negative acts).

As mentioned earlier, photo sets were considered appropriate and selected based on the criteria that they yielded the most consistent action descriptions regardless of ethnicity, the descriptions were similar to what was intended by the researcher, and that they yielded the most consistent negativity/positivity judgment regardless of ethnicity. Since the scenario descriptions were quite similar and the action valence ratings were quite consistent among all participants, the 64 photo sets proper were selected fairly easily by following the two analytic criteria. First, a photo set was chosen if the majority of the participants (11 of 20 responses) were able to comprehend a photo set scenario (i.e., interpreting the scenario in the same way as intended by the researcher). Second, a photo set was chosen if the composite positivity/negativity judgment of all participants (i.e., by averaging the positivity/negativity ratings across all respondents) correctly reflected the intended valence of each photo set. To summarize, with pilot studies I and I-a, a total of 64 photo sets (32 scenarios) were selected for the final experiment. Half of the photo sets (32) were performed by Asian actors and the other half were performed by European American actors. Of the 32 scenarios, 16 depicted socially desirable events and the other 16 depicted socially undesirable events. Equal numbers of male and female actors in each ethnic category were depicted.

Pilot Study II and Pilot Study II-a. The chosen 32 scenarios were further divided into two sets of behavioral illustration stimuli, with each set containing 16 scenarios, 8 depicting socially desirable events and 8 depicting socially undesirable events. One set

was used to measure LIB in the free-response format, by which participants gave free descriptions of observed actions, the same task as required in Pilot Studies I and I-a . The other set was used to measure LIB in a fixed-response format, by which participants had to choose from a list of four experimentally provided statements the one that they perceived to best describe the observed actions. Use of the fixed-response format provides better experimental control but lower ecological validity. By artificially limiting interpretations to only four alternatives, the study runs the risk of exaggerating the measured linguistic intergroup bias. Better ecological validity is expected to be established by inclusion of the free description format, which reflects the real world situation where people are free to generate their own interpretations of any observed event (Maass et al., 1989).

Pilot Study II was conducted to evaluate the viability of the four response alternatives in each multiple choice question written for every single scenario. The four response alternatives corresponded to the four levels of language abstraction of the Linguistic Category Model. Again, a small group ($n = 20$) of European American participants were recruited.

Participants and Procedures (Pilot Study II). Group emails were sent to students enrolled in several communication classes in Spring, 2008 to announce another extra credit opportunity. Only those students who had not participated in either Pilot Study I or Pilot Study I-a were eligible to be in Pilot Study II. Since the purpose of Pilot Study II was to test the appropriateness of the four response options of the multiple choice questions, neither photo order nor the protagonist ethnicity was a concern. All 32 photo

sets containing both European American and Asian actors were included in this study, and the photos were arranged in such a way that photo sets of the same scenario with different protagonist ethnicity would not appear in close vicinity. As in pilot studies I and I-a, participants accessed the survey through clicking on the URL link provided in the email invitations. They either continued with the survey by consenting to participate in the study or discontinued with the survey by exiting the web page.

Participants were asked to view each of the 32 photo sets and select from the four experimentally provided statements one that they perceived to have best described the episode. The 32 photo sets were 16 scenarios performed by both European Americans and Asians, 8 depicting socially desirable and 8 depicting socially undesirable episodes. Any response alternatives that did not meet the following criteria were modified (adapted from Maass et al., 1989; Tanabe & Oka, 2001) and further tested in a subsequent pilot study. First, the four response alternatives for each item should be an appropriate description of a given episode based on the independent judgment of two raters. Second, the four response alternatives for each item should correspond to the four levels of abstraction in the linguistic category model based on the independent judgments of two raters familiar with the model. Third, the wording of the four response alternatives should be straightforward and easy to understand by all participants in the pilot study. Fourth, the distribution across response alternatives should be even so that no one of the four alternatives receives almost all choices (see Appendix F for examples of multiple choice questions). The results of Pilot Study II showed that two multiple choice items

were problematic for their violation of the fourth requirement. To correct the problem of an uneven distribution among four response alternatives, Pilot Study II-a was conducted.

Pilot Study II-a. According to Maass, LIB is a very subtle effect. “Sufficient variance in responses” is important in discovering such an effect (A. Maass, personal communication, March 2, 2008). Based on Maass’ advice, the following steps were taken to improve the distribution in responses for the two “unacceptable items” (i.e., the vast majority of the participants chose one response over the other three). First, change the wording of the remaining three response alternatives but not the one most participants had chosen. Maass’ advice was to use more common descriptions and avoid “unusual and low frequency language,” and a good solution was to ask people unfamiliar with the LCM to provide a free description of each photo set. As such, the researcher reviewed the responses collected in Pilot Studies I and I-a in which participants were asked to write a sentence describing each scenario observed. The sentence descriptions nicely written and pertained to the scenarios were referenced to modify the response alternatives of the two problematic items.

Second, modification was also made to the wording of the probing question in the hopes of enhancing the variance in responses. For the two problematic items, the majority of the participants chose the response with the most concrete description (the DAV statement). In order to balance the distribution, either the IAV or SV statements or the statements containing adjectives needed to receive more choices. In Pilot Study II, the probing question was read uniformly as follows: “Which of the following sentences best describes the episode illustrated in the photos above?” It was speculated that by

including the actor's name in the probing question, the question might invite participants to focus more on the actor rather than the action only. Specifically, with the inclusion of the actors' names in the probing questions, more participants might choose SV statements or statements with adjectives which were used to describe the mental state or dispositions of the actors. As a result, a possible way to modify the probing question was as follows: "Which of the following statements best describes the episode involving Ann (the woman in the green jacket) in the photo set above?" Pilot Study II-a was conducted to test whether distribution would be more balanced among the multiple choice alternatives as a result of the two modifications described above. The results showed that modifications to the multiple choice alternatives had improved the variance in responses but not the modification made to the wording of the probing questions. Therefore, in the real study, the two problematic items were replaced by the modified versions, whereas the probing question formulation used in pilot study II was adopted (i.e., "Which of the following sentences best describes the episode illustrated in the photos above?")

Measures

Bicultural Identity Integration Scale. One of the subscales of Benet-Martinez et al.'s (2005) BIIS-1, the cultural distance scale, was used to measure the BII level of each participant. The BIIS-1 cultural distance scale includes four items that measure the degree of perceived separation between the two cultures internalized in a bicultural: (1) I combine two cultures, (2) I feel Asian American (a mixture of both cultures), (3) I am simply an Asian in America (to be reversely coded), (4) I am part of a combined culture (Cheng, Lee, & Benet-Martinez, 2006). Participants rated each item on a scale of 1

(strongly disagree) to 5 (strongly agree). A composite BII score was calculated by averaging across the four items. A high score indicated a high BII bicultural individual and a low score indicated a low BII bicultural individual. A median split was performed on the participants' scores to divide them into a high and a low BII group. Those who scored at or above the median were categorized as high BII individuals and those who scored below the median were categorized as low BII individuals. As a result, there were 82 high BII individuals and 78 low BII individuals in the current study. The Cronbach's alpha is .653.

Linguistic Intergroup Bias. As described earlier, two response measures were used to evaluate LIB. In the free-response format, participants were asked to give free descriptions of an observed action after viewing each behavioral illustration. Coding for the free-response format was based on Semin and Fiedler's (1988) criteria for determining the four levels of language abstraction in the linguistic category model (i.e., DAVs, IAVs, SV, and Adjs). Along a concreteness-abstractness continuum, DAVs were coded as 1 and Adjs were coded as 4. In a later section on *coding*, detailed criteria used to categorize responses are articulated and the limitations of Semin and Fiedler's coding criteria are discussed. In the fixed-response format, after viewing each behavioral illustration, participants were asked to select one from a list of four statements that they perceived to best describe the observed action of the protagonist in the scenario. The four statements corresponded to the four levels of abstraction of the language category model. A score of 1 was given to the response alternative of the lowest level of abstraction (DAVs) and a score of 4 was given to the response alternative of the highest

level of abstraction (adjectives). For both free-description and fixed-response formats, a participant would receive a composite score, obtained by averaging each participant's responses across the eight items representing the same episode type, protagonist ethnicity, and event valence. Each participant would receive 8 composite scores to represent their ratings for each combination. They were: Multiple Choice European American Positive Action (MEP), Multiple Choice European American Negative Action (MEN), Multiple Choice Asian Positive Action (MAP), Multiple Choice Asian Negative Action (MAN), Open-ended European American Positive Action (OEP), Open-ended European American Negative (OEN), Open-ended Asian Positive Action (oap), and Open-ended Asian Negative Action (OAN). A higher score indicated more use of abstract descriptions for observed actions.

Ethnic Attitudes Measure. A profile of general ethnic attitudes toward Asians and European Americans was obtained for all participants. The purpose of this measure was to ensure that systematic variation in the tested dependent variable (frequency of abstract behavioral descriptions) was attributable to high or low BII level, instead of other extraneous variables not measured or controlled in the study. To assess participants' evaluation of Asians and European Americans, a "negative stereotype index" was obtained for each participant (Stephan, Ybarra, & Bachman, 1999). Specifically, participants were presented 10 traits characteristic of both Asians and European Americans, respectively. These traits were adopted through a comparison among various studies (Katz & Braly, 1933; Stephan, Stephan, Stefanenko, Ageyev, Abalakina, & Coates-Shrider, 1993; Stephan, et al., 1999). Next, participants were asked to indicate on

a 10-point scale (from 0% to 100%) the percentage of either group they believed to possess each of the traits presented, a measurement strategy known as “the percentage technique” (Stephan, et al., 1993). Besides the percentage estimates for each trait, participants rated each trait on a 10-point scale, ranging from 1 (very unfavorable) to 10 (very favorable). The negative stereotype index was calculated by multiplying the percentage estimate and the favorability rating and adding the resulting figures across traits. The list of traits (5 of positive valence, 5 of negative valence) for Asians included: *industrious, intelligent, disciplined, conservative, strong family ties, sly, superstitious, reserved, clannish, and aggressive*. The list of traits (5 of positive valence, 5 of negative valence) for European Americans included *adaptable, outgoing, friendly, patriotic, independent, materialistic, proud, competitive, aggressive, and emotional*.

The Experiment Proper

The experiment was constructed based on the results of all pilot studies conducted earlier. It included six major sections. The “Warm-up” section included the cultural priming pictures discussed in the section on *cultural icon primes*. The two sections on scenario descriptions, one in a fixed-response format and the other in a free-description format, were built with the 32 photo sets tested and selected from pilot studies I, I-a; and the response statements of the multiple choice questions had been tested in pilot studies II, II-a. The other major sections of the real study included the BII measure, the general cultural attitude measure, and the one investigating the demographic background of each participant.

Participant. A total of 160 participants were recruited from the UT campus and included in the final analysis. The data collection process spanned a three-month period and included participants of many different sources at the University of Texas at Austin. Although from multiple channels, the participants recruited can be largely divided into those from the Department of Communication Studies (CMS students) and outside of the department (non-CMS students). With the consent of several instructors of the CMS courses in Spring, 2008, targeted recruiting was made possible to invite CMS students enrolled in the courses to participate in the study. Prospective participants were informed of the study either by the instructors or the researcher. A total of 37 CMS participants were eligible and included in the final analysis of the current study.

Non-CMS participants were recruited from a variety of channels on the UT campus, such as the College of Liberal Arts, College of Natural Sciences, School of Engineering and different registered student associations. Nearly 100 emails were sent to the instructors at different colleges who were teaching in Spring, 2008 and presidents of various students organizations to check the possibility of recruiting their students or organization members to participate in the project. Some instructors and organizations offered the chance to do a study promotion in the classes or at association general meetings, and many others agreed to inform their students of the chance to participate in a research project. A cover story was introduced to make the element of ethnic background less salient. In all recruitment messages tailored for non-CMS students (e.g., talks in class promotions and email invitations sent and flyers distributed to prospective participants), the ethnic background of Asian Americans was emphasized as a required

participant parameter. However, in the cover story this ethnic qualification was claimed as necessary to fulfill the requirement of a separate anthropological study which investigated cultural adaptation of Asian American college students at UT. Contact information was obtained from the students in classes where study promotions were made. These students eventually made up the bulk of the final sample. In the end, a total of 123 non-CMS participants were eligible and included in the final analysis of the current study.

The final sample for the current study was composed entirely of Asian American students recruited from the UT campus. Bicultural Asian Americans in this dissertation refer to Asian Americans whose ethnic cultural background is Chinese, Japanese, Korean or Vietnamese. The rationale for the chosen ethnic cultures is as follows: Asians from these cultural backgrounds have been among the fastest-growing immigrant groups in the United States since the 1980s. Based on the statistics of the U.S. Bureau of the Census, 2002, the Chinese makes up the largest proportion among all Asian American groups in the U.S., followed by Filipinos and Asian Indians, Vietnamese, Korean and Japanese (Rhee, Chang, & Rhee, 2003). Japanese Americans are one of the two oldest Asian American groups (Feagin & Feagin, 2003). Knowing that Asia encompasses countries of diverse cultural heritages, Asian Americans from the Philippines and India, in Southeast and South Asia respectively, were not included in the current study. Asian immigrants from Vietnam, although a Southeast country, meet the operational definition of Asian Americans in the current study because the Vietnamese are the largest of the refugee groups to have settled in America since the mid-1970s (Zhou, 2001).

Regarding the issue of length of stay in America, Asian Americans included in this dissertation project were descendents of the first-generation immigrants. Included were the *second generation* -- those who were native born and had at least one foreign-born parent (Carliner, 1980; Farley & Alba, 2002; Jensen 2001; Kao & Tienda, 2005), and the *third generation* -- those who were native born and had native-born parents (Carliner, 1980; Jensen, 2001). Although the current study excludes the first-generation immigrants, it is important to note that many scholars on immigration make a distinction between immigrants who immigrate to the United States as adults and those who arrive as children or young adolescents. The former are the first-generation immigrants while the latter are labeled the *1.5 generation* (Kim, Brenner, Liang, & Asay, 2003; Miyares, 1997; Portes & Hao, 1998; Rumbaut, 1994). The factor that most readily distinguishes between immigrants of the first- and the 1.5-generations is that the 1.5 generation immigrants spend most of their developmental years and become socialized in the United States (Kim et al., Miyares, 1997; Portes, 1994). Without specifying the age at immigration for the so-called 1.5 generation, immigration scholars agree that they are immigrants arriving in the States prior to adolescence. A review of literature on migration status, acculturation level, and acculturative stress revealed that scholars commonly divided participants into “early immigrants” and “late immigrants” – those who immigrated before and after age 12 (Mena, Padilla, & Maldonado, 1987; Ying, Lee, & Tsai, 2007). As such, for the purpose of encompassing Asian immigrants of all generations but the first, and to satisfy the operational definition of Asian Americans in the study, only Asians who immigrated to the United States before age 12 were considered the 1.5 generation and included in the

current study along with the second and third generations. It is believed that inclusion of Asian immigrants of a varied migration status and a diverse cultural background gives a better conceptual and operational definition of who a bicultural Asian American is. A total of 160 participants were recruited. In summary, UT students who met the following criteria were recruited as participants:

- a.) Their ethnic cultural background is Chinese, Japanese, Korean, or Vietnamese.
- b.) They are Asian immigrants in America. They were born in their ethnic country and moved to America before age 12 (i.e., the 1.5 generation).
- c.) They are descendents of Asian immigrants and were born in America. At least one of their parents was born in the country of ethnic origin (i.e., the 2nd generation).
- d.) They are descendents of Asian immigrants and were born in America. Both of their parents are of Asian descent but were born in America (i.e., the 3rd generation).

Coding. All responses collected from the open-ended description section of the experiment were coded by two independent raters familiar with Semin and Fiedler's Linguistic Category Model (Semin & Fiedler, 1988, 1989). However, they were completely unaware of the purpose and hypotheses of the current study. Satisfactory intercoder reliability (.82) was reached after a few additions to the scoring criteria of the LCM and several responses were recoded. The scoring criteria had to be expanded because several responses did not fall neatly into the four categories of the model. The following paragraph discusses the coding scheme used in the current study which enabled a systematic coding of those special cases.

The coding scheme was developed based on the classification criteria of the LCM and the scoring method used by Maass et al. (1989). Moving along a continuum of concreteness-abstraction, the linguistic categories of the LCM carry the cognitive implications of enduringness, subject informativeness, situative informativeness, variability, and disputability. These psychological implications are important in informing us whether the interpersonal terms, either verbs or adjectives, used to describe an observed event implies an assumption of temporal stability of an act and enduring disposition or traits of the subject (actor), whether the interpersonal terms reveal much information about the subject (i.e., use of adjectives contain the most information about an actor because of the enduring quality of an adjective), whether the interpersonal terms refer to a specific situation and concrete behaviors which are context-informative, and whether the interpersonal terms contain subjective interpretation or connotation on the part of an observer which make the descriptions disputable and hard to be verified. The table on coding schemes summarizes the general categorization criteria used in coding the responses in the current research (see Table 4).

Table 4

Coding Scheme

Category	Criteria
Descriptive Action Verbs (DAV, coded as 1)	Reponses are coded as “1” when the descriptions are at the most concrete level; refer to the specific behavioral event in the particular context with clear beginning and end; generally, readers are able to construct a picture in mind of the exact action that takes place in the photo set; they are objective descriptions without positive or negative connotations. Example: A carries a box for B
Interpretive Action Verbs (IAV, coded as 2)	Reponses are coded as “2” when participants describe the observed scenario by referring to a general class of behavior instead of specifying the exact action observed; reference to a particular behavioral event and situation with clear beginning and end; provide interpretations which contain positive or negative semantic connotations. Example: A helps B

Category	Criteria
State Verbs (SV coded as 3)	Responses are codes as “3” when the descriptions are removed from the observed behavior and have no clear beginning and end; participants describe the enduring psychological state of the actor (emotion, affect) without referring to the particular event or context; descriptions are abstract with connotative meanings. Example: A likes B
Adjectives (Adj, coded as 4)	Responses are coded as “4” when descriptions are at the most abstract level and detached from specific behaviors and contexts; participants use adjectives to refer to abstract and enduring person dispositions of the actor; descriptions are highly interpretive with connotative meanings. Example: A is kind

A few characteristic features were added to the master coding schemes above to account for the special cases which were not easily coded along the four level categories of the LCM.

1. “Transient adjectives.” Adjectives as denoted in the LCM and the above coding scheme express enduring and temporally stable dispositions or traits of an actor. However, some of the interpersonal terms found in the responses of the open-ended questions were clearly adjectives but did not have the characteristic features of enduringness and temporal stability. For example, in one photo set, the protagonist fell asleep during a lecture. Quite a few participants described the scenario as “He is sleepy;” “He is tired;” or “He is bored.” These adjectives are transient in a way that they are not supposed to be interpreted as the protagonist is sleepy, tired, or bored all the time across all situations. It is proposed that rather than pure adjectives, these terms are better treated as state verbs (SV) and coded as “3” to describe the mental states of the actor with no clear beginning and end.

2. “Non-action” verbs: When “have” is used as a verb, it carries the meaning of possession. In this case, “have” is a verb without action; hence, should not be classified as either a descriptive action verb (DAV) or an interpretive action verb (IAV). In several respondents’ descriptions, auxiliary verb “can” was used to refer to someone having the knowledge or skills for something. What makes it hard to categorize these non-action verbs is their quality of being enduring and temporally stable. For example, to describe someone opening a cookie box in the supermarket without purchasing, some participants put down such sentences as “She has no manners;” “She has no morals and steals food;”

“She has a problem with stealing.” For example, sentences such as “She has talent” and “She can play violin” were used to describe someone in a violin contest, and sentence such as “He cannot park” was used to describe someone parking his car off the designated lines. These non-action verbs carry cognitive implication of temporal stability. That is, someone is expected to have no manner or morals across time and in all situations and someone is supposed to know how to play violin now and beyond. Therefore, non-action verbs with the quality of temporal stability were coded as “4” in the current study.

3. Adverbs with connotations. With LCM, the focus is on either verbs or adjectives. However, an examination of the responses in the current study revealed that adverbs may play a significant role in influencing how the main verb in a descriptive statement is classified along the four levels of the LCM. This happens in particular when observers use adverbs to convey personal interpretations of an observed action. Take as an example the scenario of someone opening a cookie box without purchasing. It is argued that the description “She opens a cookie box and *rudely* places the box back to the shelf” should be treated differently from another sentence in which the adverb “rudely” is nonexistent. Take as another example the scenario of someone placing a bag of garbage on the sidewalk. It is argued that the sentence “She *nonchalantly* puts down a bag of garbage on the street” should be interpreted differently from a same description but without the adverb. Arguably, these adverbs convey a personal interpretation of an observer in describing an observed action. As such, the adverbs add semantic connotations to the descriptions, a characteristic feature which distinguishes DAVs from

IAVs. As a result, sentences used adverbs with connotations were coded as “2” in the current study.

In addition, the scoring method adapted from Maass et al., (1989) was added to the coding scheme to account for ambiguous descriptions and in situations when nouns rather verbs were used as interpersonal terms. First, according to Maass et al., it is necessary to give multiple scores to descriptions with multiple verbs or adjectives. In this case, descriptions will be represented by an average coding (i.e., the average of the multiple scores). For example, in describing someone shopping with a reusable eco-bag, a possible sentence to receive an average coding is, “She shops with her own bag because she is environmentally-friendly.” In this case, the ambiguous sentence with multiple interpersonal terms is represented by a coding of 2.5, which is an average of the multiple scores of DAV (1) and Adjective (4). The average coding should be interpreted as between 2 and 3 along the continuum of concreteness-abstraction, and the observer’s mental representation of an observed event is partly objective and partly subjective. Second, Nouns were coded as Adjs (e.g., “he is a *money-grabber*”) to reflect the quality of enduringness and temporal stability of nouns.

Finally, responses were coded as “0” (uncodable) in the following situations: 1) The meaning of the responses was incomprehensible. Sometimes participants put down awkward sentences for the purpose of making fun. 2) Participants apparently misinterpreted the scenario, and the meaning of the description was totally different from what was intended by the researcher. 3) Participants clearly confused who the

protagonist was in a photo set that included more than one actor. The scenario was misinterpreted as a result of the wrong focus of protagonist.

Design and Procedure

The participant parameters were strictly reinforced to ensure that all in the final sample ($n = 160$) closely met the operational definition of Asian Americans in the study. No special attention was paid to participant gender composition. Based on the LIB studies of Maass and her colleagues, LIB effect has never been found to be moderated by gender of participant (Maass, Ceccarelli, & Rudin, 1996).

The experiment employed a $2 \times 2 \times 2 \times 2$ factorial design with cultural prime (Asian or American) and BII level (low or high) as between-participant factors and the valence of the behavioral illustration (desirable or undesirable) and the protagonist ethnicity (Asian or American) as within-participants/repeated measures factors. The dependent variable is the level of abstraction in language used to describe actors' behaviors. Four survey instruments were created to account for the two different priming conditions (i.e., Asian and American cultural priming conditions) and achieve counterbalancing (i.e., within each priming condition, one survey study was counterbalanced by the other through the arrangement of photo orders – half of the participants saw one scenario performed by Asians first and the other half saw the same scenario performed by European Americans first). Half of the participants were in the Asian priming condition and the other half in the American priming condition depending on which study link they chose to access the study with. As will be explained later,

participants accessed the study survey through one of the four links according to their social security numbers.

The study was conducted entirely online and included four links for the four survey instruments developed. Specifically, the four surveys were Asian cultural primes and photo sets which started with scenarios involving European American actors (Link I), Asian cultural primes and photo sets which started with the same scenarios involving Asian actors (Link III); and American cultural primes and photo sets which started with scenarios involving European American actors (Link II), and American cultural primes and photo sets which started the same scenarios involving Asian actors (Link IV).

Participants, either recruited from the Department of Communication Studies (CMS students) or from outside of the department (non-CMS students), participated in the study through completing online survey questionnaires. When notified of the chance to participate in the current study either by course instructors or by the researcher through email invitations, prospective participants could choose to be in the study by following the URL included in the email to access the survey questionnaires. Those responded to the promotion flyers were asked to contact the researcher for survey links. Participation in the study was completed entirely through the Internet and email correspondence.

Since the study included participants from different recruiting channels (i.e., CMS students and non-CMS students which included the students from different colleges and schools in addition to student organizations at UT), special caution was taken to avoid creating confounds due to participant characteristics. For example, in order to avoid recruiting different types of people in the different experimental conditions, the four links

were sent out simultaneously to all recruiting channels. In addition, the following requirement was introduced to ensure a better distribution among the participants from all channels in the four links. Participants were required to access the survey questionnaires through different links based on their social security numbers. They were supposed to access the survey through Link I if their social security numbers started with the numbers 0, 1, or 2, through Link II for starting numbers 3, or 4, through Link III for starting numbers 5, or 6, and through Link IV for starting numbers 7, 8, or 9.

For all four survey instruments, once the participants clicked the URL link, they were presented first with a short consent form in which they could read a summary description of the study. Ostensibly, the study was described as including two distinct social scientific research projects – a psychological exploration into how people formed impressions from picture observations and an anthropological research project on cultural adaption of Asian American university students on the UT campus. Immediately following the description, participants were prompted with the question asking for their consent to participate in the study. At this point, participants were informed of the voluntary nature of their participation. They could choose to continue with the study by clicking the “Next” button or to discontinue with the study by exiting the survey window. Those who agreed to participate would encounter a more detailed description of the study on the instruction page. Depending on the links through which they accessed the survey questionnaires, either Asian or American cultural icons would follow the short consent form page. For those in the Asian cultural priming condition (Links I and III), after the short consent form page, they moved onto the “Warm-up” page which contained eight

Asian cultural icons. The contents of the eight icons were described in detail in an earlier section on *stimulus materials*. Besides viewing the cultural icons, participants were asked to pick two out of the 8 icon pictures and write a very brief sentence each describing how the icons were related to the complementary cultures. For example, for the picture of a bowl of rice, a possible sentence description was “Rice is the staple food for most Asians.” There were no right or wrong descriptions. The purpose of this exercise was to reinforce activation in participants of the complementary cultural meaning system.

Following the cultural icon viewing and sentence writing exercise, participants would proceed to the two-part behavioral illustrations sections – i.e., the scenario description sections in the fixed-response format and the free-description format to test their LIB. In the first part (fixed-response format), they would encounter a total of 32 photo sets (16 scenarios performed by both Asian and European American actors; hence, 32 photo sets) depicting the action of one protagonist in a single-person or interaction situation. The 16 scenarios included depictions of 8 socially desirable behaviors and 8 socially undesirable behaviors, with 8 performed by ethnic Asians and 8 performed by European Americans, including an equal number of male and female actors of both ethnicities. Each photo set was followed by a probing question which asked participants to choose from a set of four statements the one that best described the observed action. As mentioned earlier, the four statements corresponded to the four levels of abstraction in the language category model. Following each description question was another multiple choice question which asked the participants to rate the positivity/negativity of the

preceding observed action, with very negative (1) and very positive (5) anchoring both ends. In the second part of the behavioral illustrations sections (the free-description format), the participants were asked to view another 32 photo sets. The photo sets included 16 scenarios, eight depicting socially desirable behavior and eight depicting socially undesirable behavior, performed by an equal number of male and female Asian and European American actors. Each photo set was followed by a probing question which asked participants to describe in a brief sentence the action observed in the photo set, starting with the name of the protagonist as provided in the probing sentence. The implicit intergroup attitudes (i.e. the LIB) were supposed to be manifested in their language use and could be inferred from how participants interpreted the behavioral illustrations. Again, each description question was followed by a multiple choice question asking the participants to rate positivity/negativity of the observed action, ranging from very negative (1) to very positive (5). The photo arrangement scheme used in Pilot Studies I and II was applied to the real study to ensure that the European and Asian photos of the same scenario would not appear in close vicinity and positive and negative scenarios would interchange in a regular pattern. To achieve counterbalancing, all photo sets in Link I and II were arranged in such a way that one scenario was performed by European American actors first, but in Link III and IV they were ordered differently from in Link I and II so that the same scenario was performed by Asian actors first.

Next, the participants would complete the four-item cultural distance scale of BIIS-1 which measured the degree of perceived separation between the two cultures

internalized in a bicultural. Scores for the four items were averaged to yield a composite BII score for each participant. Following the BII measure, participants were asked to complete another measure on general ethnic attitude. Participants were presented 10 traits characteristic of Asians and European Americans respectively. Then, they were asked to indicate on a 10-point scale (ranging from 0% to 100%) the percentage of either group they believed to have possessed each of the traits presented. In addition, participants rated each trait on a 10-point scale, ranging from 1 (very unfavorable) to 10 (very favorable). A negative stereotype index could be calculated for each participant based on the percentage estimates and the favorability ratings. Finally, participants completed a brief demographic questionnaire page that tapped such background information as their ancestral cultural background (Chinese, Japanese, Korean, and Vietnamese), migration history to investigate their length of stay in America, and their ethnic/English language use situation with family and with friends.

The survey instruments of Links II and IV were designed in the same way as Links I and III except for the cultural priming condition and photo order. Participants in Links II and IV were presented with American cultural icons and asked to write about American culture. Photo arrangement for Links I and III was duplicated in Links II and IV. Eventually, in terms of the order of the photo sets, protagonist ethnicity, and valence of the action, Links I and II were identical, whereas Links III and IV were the same. Link III was the counterbalance of Link I, and Link IV was the counterbalance of Link II in terms of protagonist ethnicity. At the very end of every link, participants were asked to type in their names and contact information for the purpose of receiving a \$500 money

award. The compensation scheme for the current study was two \$500 money awards for two winners. Each participant's name was entered into a lottery drawing. The drawing was conducted by the researcher at the end of the data collection. Two winners were notified and rewarded with a \$500 money award each for their contribution to the current study.

Chapter 4: Results

All 160 qualified respondents were included in the final analysis. By setting the function of mandatory response to every single question in the survey, the online format made it possible to rule out the occurrence of missing data. As mentioned in the Method section, participants' linguistic intergroup bias as predicted to be revealed in their use of language abstraction was measured in both a fixed-response format and an open-ended, free response format. In the fixed-response format, participants had to choose from four statements the one that they perceived to best describe the observed actions. The four response alternatives corresponded to the four levels of language abstraction in the Linguistic Category Model. In the open-ended format, participants put down a brief sentence to describe each observed action. As detailed in the passages on *coding* in the Method section, participants' descriptions were coded based on Semin and Fiedler's (1988) criteria for determining the four levels of language abstraction in LCM, the scoring method adapted from Maass et al. (1989), and other coding criteria used to account for the special cases in the current study. Also as noted earlier, a median split was performed on the participants' BII scores to divide them into a high and a low BII group. There were 82 high BII individuals and 78 low BII individuals in the current study.

Two separate analyses were conducted on the response sets (the dependent variable) generated in the multiple choice format and the open-ended free description format. The analyses were 2 (primes: Asian or American cultural icons) X 2 (BII level: low or high) X 2 (protagonist ethnicity: Asian or European American) X 2 (valence of the

portrayed actions: desirable or undesirable) factorial ANOVA, with the first two being between-participant factors and the last two within-participants/repeated measures factors. Based on the hypotheses proposed, a four-way interaction was expected. Such a finding would support the claim that bicultural individuals use different levels of language abstraction to describe observed positive or negative actions performed by either ethnic Asians or European Americans depending on the environmental demand and the level of cultural integration of the bicultural observer.

Analysis of the multiple choice responses did not reveal a statistically significant four-way interaction necessary to support the hypotheses, $F(1, 156) = .40, p < .10$, nor did the analysis of the open-ended responses, $F(1, 156) = .06, p < .10$. In the following paragraphs, testing of the hypotheses is detailed, and other statistically significant lower order interactions are discussed. These lower order interactions provide partial support for the hypotheses.

Testing Hypotheses

H1 predicted that high BII Asian American biculturals would communicate favorable ingroup behaviors at a higher level of abstraction than favorable outgroup behaviors; and they perceived the primed culture as an ingroup. To test H1, two separate analyses of factorial ANOVA were conducted on the multiple choice and open-ended responses. As indicated earlier, the expected four-way interaction was not observed in either analysis to support H1.

The pattern of mean abstraction scores for high BII participants in both the multiple choice format and open-ended format was partially consistent with the

predictions. In the multiple choice format response set (see Table 5), when primed with Asian cultural icons, instead of rating positive actions performed by Asians more abstractly than when the same positive actions were performed by European Americans, the high BII participants in the current study rated positive actions performed by either European American or Asian actors at exactly the same level of language abstraction ($M = 1.79$). When primed with American cultural icons, as predicted, the high BII participants rated positive actions performed by European Americans more abstractly ($M = 1.97$) than when the same actions were performed by Asians ($M = 1.93$), but this difference did not achieve statistical significance. In the open-ended response set (see Table 6), when primed with Asian cultural icons, instead of describing positive actions performed by Asians more abstractly than when the same positive actions were performed by European Americans, the high BII participants in the current study encoded positive actions performed by European Americans at a slightly higher level of abstraction ($M = 1.77$) than when the same actions were performed by Asians ($M = 1.76$). When primed with American cultural icons, contrary to what was predicted, the high BII participants described more abstractly positive actions performed by Asians ($M = 1.87$) than when the same actions were performed by European Americans ($M = 1.78$). The combination of nonsignificant mean differences and unexpected pattern of means failed to support H1.

Table 5

Mean (SD) Abstraction Scores for the Sixteen Conditions (Primes, Participant BII Level, Actor Ethnicity, Event valence) in Multiple Choice Responses Data

BII Level	American Positive Event	American Negative Event	Asian Positive Event	Asian Negative Event
Asian Icon				
Low	1.86 (.60)	2.09 (.74)	1.90 (.67)	2.16 (.71)
High	1.79 (.47)	2.11 (.54)	1.79 (.51)	2.08 (.51)
American Icon				
Low	1.86 (.59)	2.03 (.61)	1.87 (.62)	2.11 (.62)
High	1.97 (.55)	2.20 (.58)	1.93 (.58)	2.26 (.56)

H2 predicted that high BII Asian American biculturals would communicate unfavorable ingroup behaviors at a lower level of abstraction than unfavorable outgroup behaviors; and they perceived the primed culture as an ingroup. H2 was tested by the factorial ANOVA conducted on the multiple choice and open-ended responses. H2 was not supported due to the lack of a four-way interaction in either analysis.

The mean abstraction scores for high BII participants in the multiple choice format followed the predicted trends, although the mean differences did not reach statistical significance. Regarding the means in the open-ended format, the differences did not trend entirely in the predicted directions. In the multiple choice format response set (see Table 5), when primed with Asian cultural icons, as predicted, the high BII

participants rated negative actions performed by Asians less abstractly ($M = 2.08$) than when the same negative actions were performed by European Americans ($M = 2.11$). When primed with American cultural icons, as predicted, the high BII participants rated negative actions performed by European Americans less abstractly ($M = 2.20$) than when the same actions were performed by Asians ($M = 2.26$). In the open-ended response set (see Table 6), when primed with Asian cultural icons, as predicted, the high BII participants encoded the negative actions performed by Asians at a lower level of abstraction ($M = 1.73$) than when the same actions were performed by European Americans ($M = 1.90$). When primed with American cultural icons, contrary to what was predicted, the high BII participants described less abstractly negative actions performed by Asians ($M = 1.75$) than when the same actions were performed by European Americans ($M = 1.78$). Overall, H2 was not supported.

Table 6

Mean (SD) Abstraction Scores for the Sixteen Conditions (Primes, Participant BII Level, Actor Ethnicity, Event valence) in Open-ended Responses Data

BII Level	American Positive Event	American Negative Event	Asian Positive Event	Asian Negative Event
Asian Icon				
Low	1.69 (.72)	1.69 (.76)	1.82 (.74)	1.64 (.78)
High	1.77 (.66)	1.90 (.74)	1.76 (.60)	1.73 (.64)
American Icon				
Low	1.55 (.46)	1.61 (.63)	1.59 (.45)	1.56 (.46)
High	1.79 (.63)	1.78 (.70)	1.87 (.68)	1.75 (.66)

H3 predicted that low BII Asian American biculturals would communicate favorable ingroup behaviors at a higher level of abstraction than favorable outgroup behaviors; and they perceived the primed culture as an outgroup. Also tested by the factorial ANOVA conducted on the multiple choice and open-ended responses, H3 was not supported because the expected four-way interaction did not happen in either analysis.

The mean abstraction scores for low BII participants in both the multiple choice format and open-ended format showed little support for the predictions. In the multiple choice format response set (see Table 5), when primed with Asian cultural icons, instead of rating positive actions performed by European Americans more abstractly than when

the same positive actions were performed by Asians, the low BII participants in the current study rated positive actions performed by Asian actors at a higher level of language abstraction ($M = 1.90$) than when the same actions were performed by European Americans ($M = 1.86$). When primed with American cultural icons, as predicted, the low BII participants rated positive actions performed by Asians more abstractly ($M = 1.87$) than when the same actions were performed by European Americans ($M = 1.86$), but the difference was too small to be statistically significant. In the open-ended response set (see Table 6), when primed with Asian cultural icons, instead of describing positive actions performed by European Americans more abstractly than when the same positive actions were performed by Asians, the low BII participants encoded positive actions performed by Asians at a higher level of abstraction ($M = 1.82$) than when the same actions were performed by European Americans ($M = 1.69$). When primed with American cultural icons, as predicted, the low BII participants described more abstractly positive actions performed by Asians ($M = 1.59$) than when the same actions were performed by European Americans ($M = 1.55$), although the difference was fairly small and was not statistically significant. Thus H3 was not supported.

H4 predicted that low BII Asian American biculturals would communicate unfavorable ingroup behaviors at a lower level of abstraction than unfavorable outgroup behaviors; and they perceived the primed culture as an outgroup. Tested with the same factorial ANOVA conducted on the multiple choice and open-ended responses, H4 was not supported because the hypothesized four-way interaction was not significant in either analysis.

The pattern of mean abstraction scores for low BII participants in both the multiple choice format and open-ended format was not consistent with the predictions. In the multiple choice format response set (see Table 5), when primed with Asian cultural icons, as predicted, the low BII participants rated negative actions performed by European American less abstractly ($M = 2.09$) than when the same negative actions were performed by Asians ($M = 2.16$), although the difference did not achieve statistical significance. When primed with American cultural icons, rather than describing negative actions performed by Asians less abstractly than when the same negative actions were performed by European Americans, the low BII participants rated negative actions performed by European Americans less abstractly ($M = 2.03$) than when the same negative actions were performed by Asians ($M = 2.11$). In the open-ended response set (see Table 6), when primed with Asian cultural icons, instead of describing negative actions performed by European Americans less abstractly than when the same negative actions were performed by Asians, the low BII participants in the current study encoded the negative actions performed by Asians at a slightly lower level of abstraction ($M = 1.64$) than when the same negative actions were performed by European Americans ($M =$

1.69). When primed with American cultural icons, as predicted, the low BII participants described less abstractly the negative actions performed by Asians ($M = 1.56$) than when the same negative actions were performed by European Americans ($M = 1.61$), but again the difference was too small to be statistically significant. Overall, H4 did not receive support in the study.

Other Findings

Multiple Choice Format – the Main Effect of Event Valence. The factorial ANOVA conducted on the multiple choice responses yielded only one main effect (event valence), $F(1, 156) = 94.48, p < .001, \eta^2 = .37$. No other effects or interactions were significant. The main effect indicated that the participants, regardless of BII level and cultural prime, used more concrete language terms to describe observed positive actions ($M = 1.87, SD = .04$) than negative actions ($M = 2.13, DS = .05$) performed by either Asians or European Americans. Since analysis of the multiple choice responses did not produce any statistically significant interactions on which the hypotheses hinged on, no further statistical testing was conducted on the multiple choice data set.

Open-ended Format. With participants describing each observed action in their own words, the open-ended responses were arguably more ecologically valid than the data generated in the fixed response format. No main effects were found in the analysis of the open-ended responses. However, a few interaction effects were revealed to provide partial support for the hypotheses. Table 10 lists the factorial ANOVA results of the interaction effects and related unplanned comparisons along with interpretations of each effect and comparison.

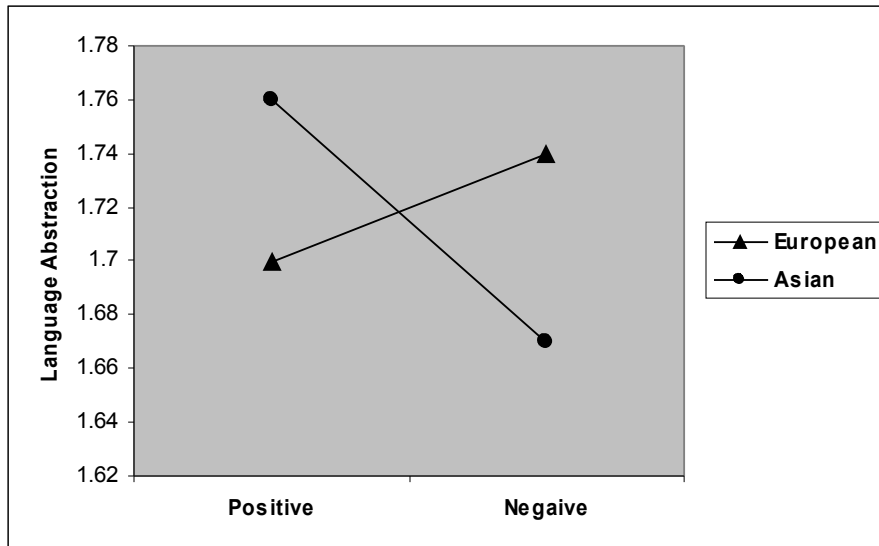
There was a significant interaction between the *ethnicity* of the protagonist (Asian/European American) in an observed action and *valence* (positivity/negativity) of the action, $F(1, 156) = 16.77, p < .001, \eta^2 = .10$. The relevant means are presented in Table 7. Pairwise comparisons (Winer, Brown, & Michel, 1991) were performed to examine differences in language abstraction of the factor, *actor ethnicity*, within the two levels of the factor, *event valence*, and to compare differences in language abstraction of the factor, *event valence*, within each level of the factor, *actor ethnicity*. A Bonferroni correction was applied to control for inflation of alpha. The unplanned comparison indicated that participants used more abstract language to describe positive actions performed by Asians ($M = 1.76$) than when those same actions were performed by European Americans ($M = 1.70$), $F(1, 156) = 6.75, p < .01, \eta^2 = .04$. It was also found that participants encoded at a higher level of language abstraction to describe negative actions performed by European Americans ($M = 1.74$) than when the same actions were performed by Asians ($M = 1.67$), $F(1, 156) = 10.05, p < .01, \eta^2 = .06$. In addition, participants were found to have described more abstractly positive actions performed by Asian protagonists ($M = 1.76$) than negative actions performed by Asians ($M = 1.67$), $F(1, 156) = 6.20, p < .05, \eta^2 = .04$. (see Figure 1). All these significant effects indicate that participants perceive ethnic Asians as an ingroup. Further inference and interpretations from these effects will be detailed in the discussion section.

Table 7

Estimated Marginal Mean Abstraction Scores as A Function of the Protagonist Ethnicity and the Desirability of the Protagonist Behavior

Event Valence	Actor Ethnicity	
	European American	Asian
Positive	1.70 (.05)	1.74 (.06)
Negative	1.76 (.05)	1.67 (.05)

Figure 1. Estimated marginal mean abstraction scores as a function of actor ethnicity and event valence



The factorial ANOVA also yielded a significant interaction between *icon*, *BII level*, and *actor ethnicity*, $F(1, 156) = 6.44, p < .01, \eta^2 = .04$. The relevant means are presented in Table 8. Pairwise comparisons (Winer et al., 1991) were also performed to obtain contrasts of actor ethnicity (European American, Asian) within each combination of icon (Asian, American) and BII level (high, low), contrasts of icon within each combination of actor ethnicity and BII level, and contrasts of BII level within each combination of actor ethnicity and icon. The Bonferroni method was applied to correct for alpha inflation. The unplanned comparison indicated that in the Asian cultural priming condition, high BII participants encoded behaviors, either positive or negative, performed by European Americans at a higher level of language abstraction ($M = 1.83$) than when the same behaviors were performed by Asians ($M = 1.74$), $F(1, 156) = 7.54, p < .01, \eta^2 = .05$. (see Figures 2, 3). In addition, compared to low BII participants in the American cultural priming condition, high BII participants described more abstractly actions performed by Asians, either positive or negative ($M = 1.81$ for high BIIs, and $M = 1.57$ for low BIIs), $F(1, 156) = 3.07, p < .08, \eta^2 = .02$, meaning low BII and high BII participants were different in their use of language abstraction to describe actions performed by Asians in the American culture priming condition.

Table 8

Estimated Marginal Mean (SD) Abstraction Scores as A Function of the Protagonist Ethnicity and the Participant BII Level in Asian and American Cultural Prime Conditions

Participant BII Level	Actor Ethnicity	
	European American	Asian
Asian Icon		
Low	1.69 (.10)	1.73 (.09)
High	1.83 (.10)	1.74 (.10)
American Icon		
Low	1.58 (.10)	1.57 (.10)
High	1.78 (.10)	1.81 (.09)

Figure 2. Estimated marginal mean abstraction scores as a function of actor ethnicity and participant BII level under the Asian cultural priming condition

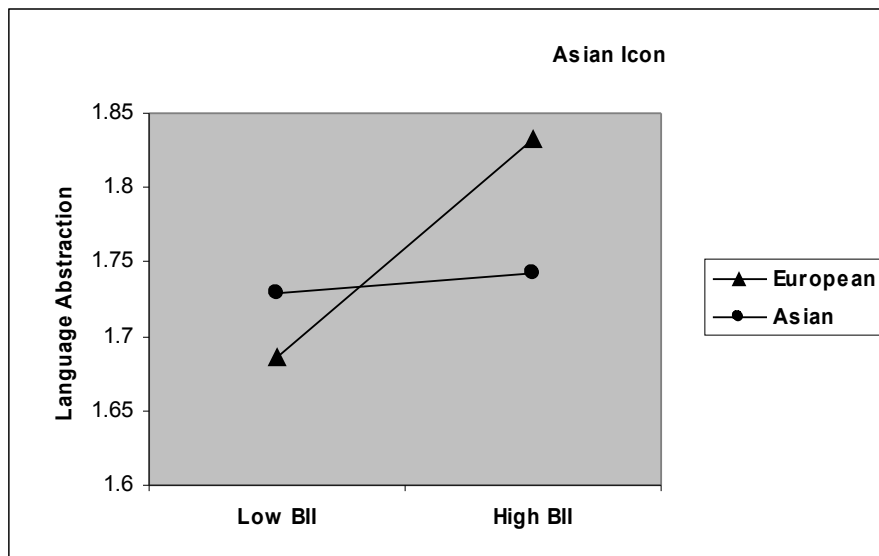
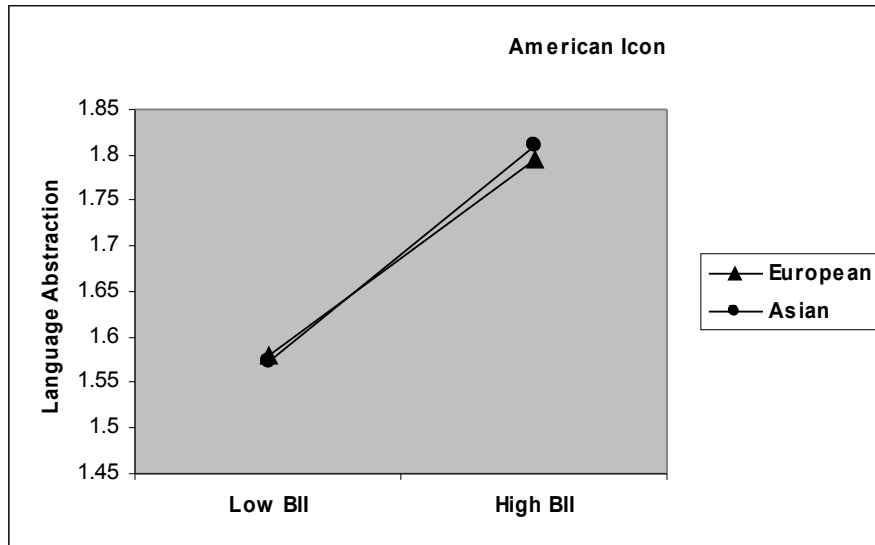


Figure 3. Estimated marginal mean abstraction scores as a function of actor ethnicity and participant BII level under the American cultural priming condition



In fact, closer examinations of all comparison pairs with post hoc procedures, while acknowledging both significant and non-significant trends, revealed a systematic pattern in use of language abstraction between the low and high BII participants. Although lacking statistical support, a strong consistency was observed in all mean comparisons. That is, trending in the same directions, the mean differences in all comparison pairs showed that low BII and high BII participants were always opposite in use of language abstraction when describing observed actions performed by either European American or Asian actors. This is true between high and low BII participants within the same cultural priming condition, and so for low BIIs between different cultural priming conditions and for high BIIs between different cultural priming conditions. For example, in the Asian cultural priming condition, low BII participants described more abstractly the actions of Asians ($M = 1.73$) than the actions of European Americans ($M = 1.69$), while the high BII participants described more abstractly the actions of European

Americans ($M = 1.83$) than the actions of Asians ($M = 1.74$), although only the latter comparison achieved statistical significance. In the American cultural priming condition, low BII participants described more abstractly the actions of European Americans ($M = 1.58$) than the actions of Asians ($M = 1.57$), while high BII participants described more abstractly the actions of Asians ($M = 1.81$) than the actions of European Americans ($M = 1.78$) although the differences were not statistically significant. Also, the levels of language abstraction used by low BII participants were exactly opposite in the two priming conditions, which was also true for the language use situation by high BII participants. That is, in the Asian priming condition, low BII participants described more abstractly the actions of Asians ($M = 1.73$) than the actions of European Americans ($M = 1.69$), whereas they described more abstractly the actions of European Americans ($M = 1.58$) than the actions of Asians ($M = 1.57$) in the American priming condition, although the differences were not statistically significant. In the Asian priming condition, high BII participants described more abstractly the actions of European Americans ($M = 1.83$) than the actions of Asians ($M = 1.74$), whereas they described more abstractly the actions of Asians ($M = 1.81$) than the actions of European Americans ($M = 1.78$) in the American priming condition, although only the former comparison was statistically significant.

Interpretation of a four-way interaction is difficult even in the presence of a strong interaction effect (Myers & Well, 2003; Riding & Pugh, 1986). In the current study, the expected four-way interaction effect did not happen. As a result, it is all the more difficult to explain conclusively the observed patterns mentioned above. Nonetheless,

two concrete conclusions can be drawn. First, within the same cultural priming condition, high and low BIIs were opposite in their use of language abstraction when describing observed actions performed by European American or Asian actors, either positive or negative. Second, cultural priming influenced the use of language abstraction of Asian Americans in such a way that when they used more *abstract* language terms to describe actions performed by Asians than actions performed by European Americans in one priming condition, they would use comparatively more *concrete* language terms to describe actions performed by Asians than actions performed by European Americans in the other priming condition, and when they used more *abstract* language terms to describe actions performed by European Americans than actions performed by Asians in one priming condition, they would use comparatively more *concrete* language terms to describe actions performed by European Americans than actions performed by Asian in the other priming condition.

Interestingly, the means of the marginally significant *icon X BII level X event valence* interaction, $F(1, 156) = 3.08, p < .08, \eta^2 = .02$, exhibited the same pattern of language abstraction usage between low and high BII participants in their descriptions of positive or negative actions. Relevant means of this interaction are presented in Table 9. Pairwise comparisons were performed to obtain contrasts of event valence (positive, negative) within each combination of icon (Asian, American) and BII level (high, low), contrasts of icon within each combination of event valence and BII level, and contrasts of BII level within each combination of event valence and icon. Again, Alpha inflation was corrected by the Bonferroni procedure. The unplanned comparison indicated that in the

American cultural priming condition and compared to low BII participants, high BII participants encoded observed positive behaviors performed either by European Americans or Asians at a higher level of abstraction ($M = 1.83$ for high BIIs, and $M = 1.57$ for low BIIs), with the difference reaching marginally statistical significance, $F(1, 156) = 3.59, p < .06, \eta^2 = .02$.

In fact, in all comparison pairs, while taking into account both significant and non-significant trends, low BII and high BII participants were exactly opposite in their use of language abstraction when describing observed positive and negative actions under the same cultural priming condition (see Table 9, Figures 4, 5). That is, under the same cultural priming condition, when low BIIs described more abstractly the observed positive actions than observed negative actions, high BIIs described more abstractly the observed negative actions than observed positive actions. For example, under the Asian cultural priming condition, the mean language abstraction scores for low BII participants were $M = 1.75$ for observed positive actions and $M = 1.66$ for observed negative actions, whereas for high BIIs, they were $M = 1.76$ for observed positive actions and $M = 1.81$ for observed negative actions. Under the American cultural priming condition, the mean language abstraction scores for low BII participants were $M = 1.57$ for observed positive actions and $M = 1.59$ for observed negative actions, whereas for high BIIs, they were $M = 1.83$ for observed positive actions and $M = 1.77$ for observed negative actions, although none of the aforementioned mean differences reached statistical significance.

In addition, both low and high BIIs were opposite in their use of language abstraction when describing observed positive and negative actions under different

cultural priming conditions. That is, when low BIIs encoded more *abstractly* observed positive actions than observed negative actions in one cultural priming condition, they encoded more *concretely* observed positive actions than observed negative actions in the other cultural priming condition; and vice versa. The same also held true for the high BII participants. For instance, the low BII participants' mean language abstraction scores for observed positive and observed negative actions were $M = 1.75$ and $M = 1.66$ in the Asian cultural priming condition, whereas they were $M = 1.57$ for observed positive actions and $M = 1.59$ for observed negative actions in the American cultural priming condition. The high BII participants' mean language abstraction scores for observed positive and observed negative actions were $M = 1.76$ and $M = 1.81$ in the Asian cultural priming condition, whereas they were $M = 1.83$ for observed positive actions and $M = 1.77$ for observed negative actions in the American cultural priming condition, in spite of the fact that none of the mean differences were statistically significant. To sum up, although speculative in nature and without statistical support, the differences in mean language abstraction level between low and high BII participants within the same cultural priming condition showed a consistent trend. Low and high BIIs exhibited oppositional trends in their use of language abstraction when describing observed positive and negative actions within one cultural priming condition. In addition, low BII participants demonstrated contradictory patterns in their use of language abstraction when describing observed positive or negative actions in two different cultural priming conditions, which was also true for high BII participants.

Table 9

Estimated Marginal Mean (SD) Abstraction Scores as A Function of the Event Valence and the Participant BII Level in Asian and American Cultural Prime Conditions

Participant BII Level	Event Valence	
	Positive	Negative
Asian Icon		
Low	1.75 (.10)	1.66 (.10)
High	1.76 (.10)	1.81 (.11)
American Icon		
Low	1.57 (.10)	1.59 (.11)
High	1.83 (.10)	1.77 (.10)

Figure 4. Estimated marginal mean abstraction scores as a function of event valence and participant BII level under the Asian cultural priming condition

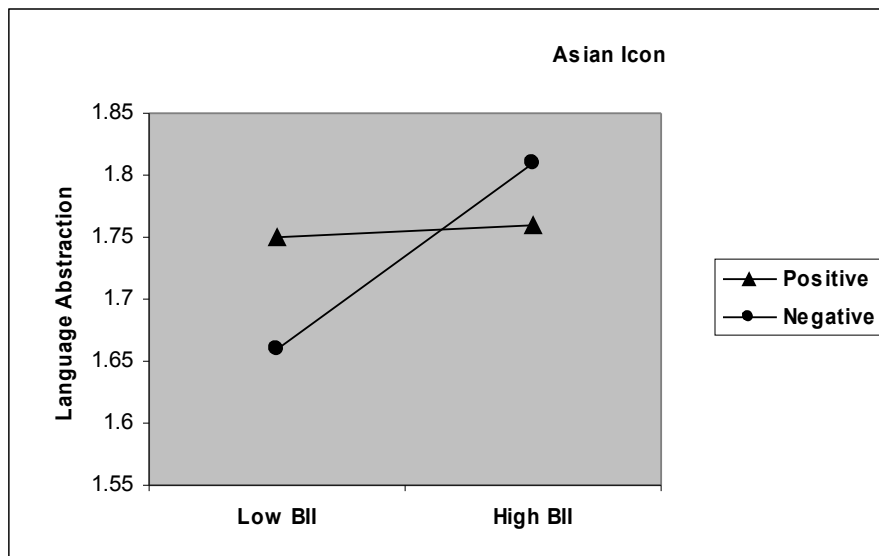


Figure 5. Estimated marginal mean abstraction scores as a function of event valence and participant BII level under the American cultural priming condition

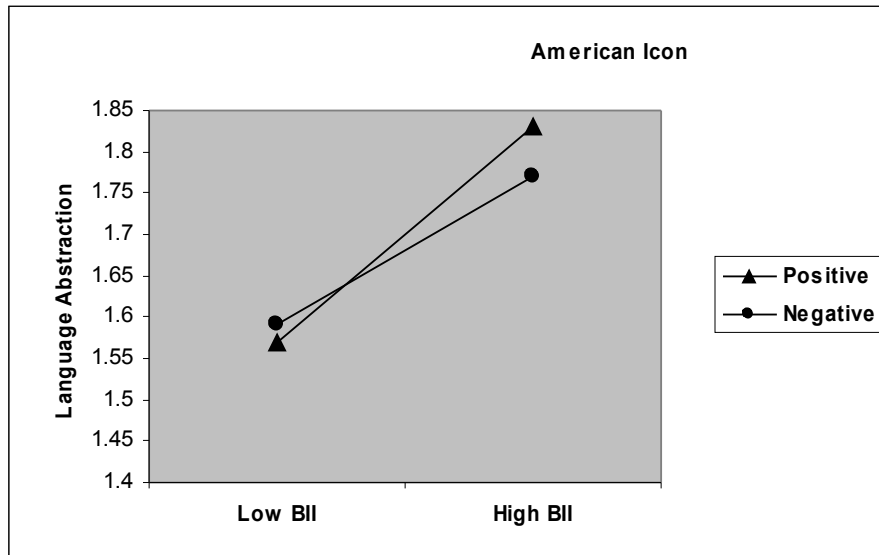


Table 10

Analysis of Significant Lower Order Interactions in Open-ended Responses: A Summary of Factorial ANOVA Results of Interaction Effects, Unplanned Comparisons

Interaction Effects/Unplanned Comparisons	F-Values	Interpretation
1. <i>Actor Ethnicity X Event Valence</i>	$F(1, 156) = 16.77, p < .001, \eta^2 = .10$	participants perceive ethnic Asians as an ingroup
1a. Unplanned Comparison	$F(1, 156) = 6.75, p < .01, \eta^2 = .04$	participants used more abstract language to describe positive actions performed by Asians than when those same actions were performed by European Americans

Interaction Effects/Unplanned Comparisons	F-Values	Interpretation
1b. Unplanned Comparison	$F(1, 156) = 10.05, p < .01, \eta^2 = .06$	participants encoded at a higher level of language abstraction to describe negative actions performed by European Americans than when the same actions were performed by Asians
1c. Unplanned Comparison	$F(1, 156) = 6.20, p < .05, \eta^2 = .04$	participants described more abstractly positive actions performed by Asian protagonists than negative actions performed by Asians
2. <i>Icon X BII Level X Actor Ethnicity</i>	$F(1, 156) = 6.44, p < .01, \eta^2 = .04$	low BII and high BII participants were always opposite in use of language abstraction when describing observed actions performed by either European American or Asian actors
2a. Unplanned Comparison	$F(1, 156) = 7.54, p < .01, \eta^2 = .05$	in the Asian cultural priming condition, high BII participants encoded behaviors, either positive or negative, performed by European Americans at a higher level of language abstraction than when the same behaviors were performed by Asians
2b. Unplanned Comparison	$F(1, 156) = 3.07, p < .08, \eta^2 = .02$	compared to low BII participants in the American cultural priming condition, high BII participants described more abstractly actions performed by Asians, either positive or negative

Interaction Effects/Unplanned Comparisons	F-Values	Interpretation
3. <i>Icon X BII Level X Event Valence</i>	$F(1, 156) = 3.08, p < .08, \eta^2 = .02$	low BII and high BII participants were exactly opposite in their use of language abstraction when describing observed positive and negative actions
3a. Unplanned Comparison	$F(1, 156) = 3.59, p < .06, \eta^2 = .02$	in the American cultural priming condition, high BII participants, compared to low BII participants, encoded observed positive behaviors performed either by European Americans or Asians at a higher level of abstraction

Chapter 5: Discussion

Statistical results showed that the hypotheses were partially supported by a few statistically significant second- and first-order interactions. In this section, interpretations of these interaction effects are discussed, limitations of the study are detailed, contributions of the current findings to social science scholarship are noted, and directions for future research are offered.

Interpretation of Findings

Ethnic Asians as Ingroup. The most surprising finding in the study lies in the interpretation of the statistically significant interaction between actor ethnicity and event valence. The interaction showed that both low and high BII participants perceived ethnic Asians as an ingroup. As a whole, participants described more abstractly positive actions performed by Asian actors than when the same positive actions were performed by European American actors, whereas participants described more abstractly negative actions performed by European American actors than when the same negative actions were performed by Asian actors. Based on the underlying assumption of the LIB (i.e., people tend to communicate favorable ingroup and unfavorable outgroup behaviors more abstractly than unfavorable ingroup and favorable outgroup behaviors), the analysis results clearly demonstrated that the bicultural participants in the study perceived ethnic Asians as an ingroup and European Americans (the dominant culture) as an outgroup. It was hypothesized that bicultural individuals perceived ethnic Asians or European Americans as an ingroup/outgroup depending on the environmental cues (manipulated by cultural icon primes in this study) and as a function of the levels of bicultural identity

integration (BII level) of the participants; i.e. -- who they perceived to be an ingroup varied in accordance with the environmental demand . Very different from the predictions, the current study results indicated that bicultural Asian Americans perceived coethnics as an ingroup across situations. This is an intriguing finding that merits further exploration. A review on literature in acculturation, social cognition, and social identity may provide some insight into why Asian American biculturals might treat people of their cultural origin as an ingroup.

Literature on acculturation has encompassed a wide range of theoretical concepts, models, and propositions to explain the complex social construct of ethnic identity. Based on the classic assimilation model, an immigrant's acculturating experience is analogous to a straight line, a uniformed trajectory with identificational assimilation as the end point (Gordon, 1964; Warner & Srole, 1945; Wildsmith, 2004), and with *not* acculturated anchoring the other end. The model centers on the argument that when acculturation process deepens – generational shift, adoption of host language, and change in sociopolitical membership status due to naturalization and length of stay, immigrants and their descendants will eventually assimilate into the mainstream culture. Apparently, the finding of the current study that seasoned bicultural Asian Americans identify with coethnics as an ingroup contradicts the premise of the classic assimilation model. All participants in the study, being of the 1.5-generation, the second-generation, or the third-generation Asian Americans, have spent their formative years in the United States and possess American citizenship. Accordingly, they should be completely absorbed into the mainstream American culture.

On the other hand, several theoretical concepts support another acculturation scenario in which bicultural immigrants retain their ethnic cultural values and identity. Berry's bidimensional model, as mentioned previously in the Literature Review section, differs from the classic acculturation paradigm in its acknowledgement of individual differences in the acculturation process (Berry et al., 1987). There are four possible acculturation orientations to the bidimensional model -- assimilation, integration, marginalization and separation. Immigrants with the separation orientation are those attached to the heritage culture. Moreover, individual immigrants may have totally different acculturation experiences due to their social economic status, demographic backgrounds, different country of origin, and other sociostructural variables. As such, some acculturation scholars have proposed the concept of *segmented assimilation*. According to this perspective, different immigrant groups assimilate to different parts of the mainstream society. Those of a relatively higher status tend to assimilate into the dominant middle class culture and develop an American identity. Children in upper middle-class immigrant families might also retain the national identity of their immigrant parents who are normally well-educated and enjoy a higher status which their children can aspire to. On the other hand, children of immigrants who occupy a lower rung in society are likely to identify with other marginalized groups in the United States and adopt a racial or panethnic identity such as a Black self-identity (Portes & Zhou, 1993; Rumbaut 1994).

From the perspective of social cognition, identity, and intergroup relations, social identity theory (Brewer, Manzi, & Shaw, 1993; Tajfel et al., 1971; Tajfel & Turner,

1985) has provided yet another way to look at bicultural Asian Americans' ingroup/outgroup orientation. Through human interactions, individuals develop a series of social identities which designate group memberships and provide individuals with values and emotional significance (Rosenthal & Hrynevich, 1985; Tajfel, 1981). Besides social identities, individuals also derive a sense of self-image from the created social group memberships (Voci, 2006). It follows that individuals are motivated to seek positive self identities from their group memberships, and the way to achieve positive group distinctiveness is through intergroup comparison and the perception that one's own group is superior to any other groups (Bennett, et al., 2004; Struch, N., & Schwartz, H., 1989).

As individuals self-categorize themselves as members of an ingroup, they incorporate the ingroup characteristics into their self-concepts and begin to see themselves as prototypical ingroup members (Hogg & Terry, 2000; Jackson & Smith, 1999; Noel, Wann, & Branscombe, 1995). To be perceived as typical ingroup members or the prototype ingroup members, one must share the norms and views with other ingroup members (Jetten, Spears, & Manstead, 1996). As group members become interchangeable and depersonalized, an opposite driving force to satisfy a fundamental human need of being different and distinctive may come to the fore to demand for an equilibrium between individuation and deindividuation (Vignoles, Chryssochoou, & Breakwell, 2000). The principal proposition of Brewer's (1991) *optimal distinctiveness theory* is the human motivation to reach a balance between the two opposing forces of need for assimilation and need for differentiation. The ideal is to identify with an ingroup

that meets both the needs for assimilation and inclusion and distinctiveness and differentiation. According to Brewer (1996), the balance between the two cognitive tensions of belonging and separation at a group level may only be achieved with “distinctive social categorizations where ingroup membership is secure and differentiation from outgroups is unambiguous” (p. 297).

The above requirements of reaching optimal distinctiveness are arguably very difficult to attain for the bicultural Asians Americans who aspire to be a part of the mainstream culture. Their phenotypic Asian appearance is oftentimes a cause for “ethnifying” and “otherizing” by the dominant group who perceives Asian Americans as perpetual foreigners (Tafarodi, Kang, & Milne, 2002). On one hand, the physical features of Asian Americans are likely to prevent them from assimilating into the desired dominant ingroup. As a result, their need for inclusion is not satisfied. On the other hand, their physical appearance provides a further obstacle to dominant ingroup membership because it makes the requirement of unambiguous differentiations from outgroups nearly impossible (i.e., Asian Americans are perceptually more similar to ethnic Asians than European Americans). Therefore, individual upward mobility (gaining membership in the dominant group) is not readily available for most Asian Americans to enhance the positivity of their social identity because their physical features determine their group status (Bettencourt, Dorr, Charlton, & Hume, 2001; Tajfel, 1981). In contrast, Asian Americans might reach optimal distinctiveness by identifying with ethnic Asians, whose membership is capable of providing Asian Americans with

sufficient inclusion within the group and adequate outgroup differentiation from the mainstream culture (Leonardelli & Brewer, 2001).

In fact, according to the social identity theory, minority group members tend to emphasize their ethnic identity when they perceive intergroup boundaries to be impermeable (Verkuyten, 2002). This might explain why in several studies on Asian American identity, most participants indicated through interviews and self-reports that they felt more connected to people of similar ethnic backgrounds and more identified with their culture of origin as they grew older (Kim, Brenner, Liang, & Asay, 2003). Similarly, in their study of young Asian American professionals' ethnic attachments, Min and Kim (2000) reported that their participants grew proud of their Asian identity although they described themselves to be resisting ethnic culture and aspiring to be Americans during their formative years. It is common for young immigrant children to wish for assimilation to the mainstream culture as a way of resolving the psychological pressure of feeling dissimilar to their reference groups (Rambaut, 1994). Nonetheless, they may encounter ethnic victimization from peers at school which lower their positive evaluation of the dominant outgroup (Verkuyten, 2002) or they may experience a "glass ceiling" problem at work which may draw them closer to their coethnics (Min & Kim, 2000). Ultimately, it is worth mentioning that a bicultural's implicit ethnic or group identity might remain stable across different contexts as shown in the current study results. Nonetheless, the bicultural's explicit social identity might present itself as a fluid and dynamic construct as a result of the compelling need to balance the push and pull between feeling inclusive to and distinctive from others at any given point in time. Such

an argument makes it possible to explain the experience of the Jewish American in the novel *Portnoy's Complaint* (Roth, 1969), the phenomenon that bicultural Jewish Americans feel and behave more Jewish in American settings but more American when traveling to their ethnic countries (Min & Kim, 2000). The compelling need for an inner balance also explains the common behavior of young biculturals who speak, behave, and dress like their counterparts in the mainstream culture in an attempt to “fit in” (Tafarodi et al., 2002).

Cultural Frame Switching (CFS) and Bicultural Identity Integration (BII). The impact of CFS and BII (the two between-subject variables) on participants' use of language abstraction in describing observed actions of positive or negative valence performed by either European American or Asian actors (the two within-subject variables) could not be inferred directly from the study results. However, the presence of their impact was apparent after examining the other lower order interaction effects. As pointed out in the Results section, these interactions (see Tables 7, 8, & 9) revealed that low and high BIIs showed exactly opposite patterns in their use of language abstraction within the same cultural priming condition, and their levels of language abstraction were reversed also, both in terms of actor ethnicity and event valence, between two cultural priming conditions.

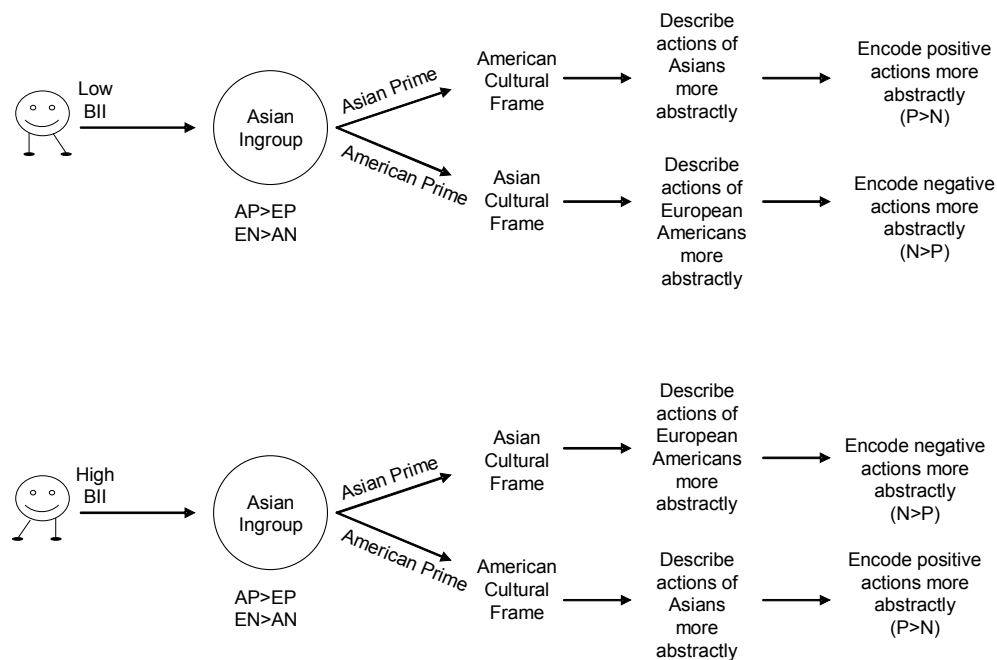
As noted earlier, the fundamental assumption of Hong et al.'s (2000) CFS is that bicultural individuals are capable of engaging in CFS depending on the demands of the immediate environment. Believing that BII level influences bicultural individuals' CFS behavior, Benet-Martinez and colleagues (2002) proposed that high BII biculturals would

engage in CFS in a culturally consistent manner and adopt a cultural frame consistent with the cultural cues in the environment, and low BII biculturals would engage in CFS in a culturally inconsistent manner and adopt a cultural frame contrary to the primed cultural cues. As it turns out, the theoretical concepts of CFS and BII provide a good explanation for the observed systematic pattern in use of language of abstraction between low and high BIIs in the current study. Applying the assumptions of CFS and BII to the results of the current study leads to an integrated pattern which can be summarized in a diagram and the study results can be properly interpreted with the concept of cultural meaning frames – thinking with an Asian mind or an American mind (see Figure 6).

Asian Mind versus American Mind. One way to summarize the hypotheses in the current study is that both low and high BII individuals describe positive behaviors performed by ingroup members more abstractly than positive behaviors performed by outgroup members, and they use more concrete language to describe negative behaviors of ingroup members than negative behavior of outgroup members, and the uses of language abstraction for low and high BIIs are mirror images of each other because they react to cultural stimuli in an opposite manner. Furthermore, the hypotheses predicted the precise differential ingroup/outgroup perceptions of high and low BIIs in accordance with primed cultural cues, which determined the LIB behavior of biculturals in different experimental conditions. The lack of a four-way interaction between icon, BII level, actor ethnicity, and event valence and the finding of ethnic Asians being the ingroup for the bicultural participants made it impossible to fully support the hypotheses. However, the findings of the current study as shown in Figure 6 partially supported the hypotheses

in the sense that low and high BII individuals were consistently opposite in their use of language abstraction which hinged on the adopted cultural frames under a certain cultural priming condition. The observed systematically oppositional patterns of language abstraction between low and high BII participants in the current study show the impact of CFS and BII on the LIB behavior of bicultural Asian Americans.

Figure 6. Diagram of low and high BII participants' use of language abstraction under Asian and American cultural priming conditions



The language use diagram (see Figure 6) shows graphically that use of language abstraction for low and high BII participants trended in a systematic and oppositional

direction. Following the flow in the diagram for both low and high BIIs, four inferences can be drawn regarding ingroup/outgroup orientation for the participants in the current study. First, when primed with Asian cultural cues, low BII participants adopted the American cultural frame. Furthermore, they described actions performed by *Asians* (either positive or negative) more abstractly. They also encoded *positive* acts, performed by either Asian actors or European American actors, more abstractly. Hence, it is inferred that when describing Asian positive acts, more abstract language terms were used. Second, when primed with American cultural cues, low BII participants adopted the Asian cultural frame. In this condition, they described actions performed by *European American* actors (either positive or negative) more abstractly. They also encoded *negative* acts (either performed by Asian actors or European American actors) more abstractly. Therefore, it is inferred that when describing negative acts performed by European Americans, more abstract language terms were used. Based on the first and second inferences, it is concluded that low BII participants perceive Asians as an ingroup (i.e., higher level of language abstraction was accorded Asian/positive acts and European American/negative acts).

Third, when primed with Asian cultural cues, high BII participants adopted the Asian cultural frame. Under this condition, they described actions performed by *European American* actors (either positive or negative) more abstractly. They also encoded *negative* acts (performed by either Asian actors or European American actors) more abstractly. Thus, it is inferred that when describing negative acts performed by European Americans, more abstract language terms were used. Fourth, when primed

with American cultural cues, they adopted the American cultural frame. In this situation, they described actions performed by *Asian* actors (either positive or negative) more abstractly. They also encoded *positive* acts (either performed by Asian actors or European American actors) more abstractly. Consequently, it is inferred that when describing positive acts performed by Asians, more abstract language terms were used. Based on the third and fourth inferences, it is also concluded that high BII participants perceive Asians as an ingroup (i.e., higher level of language abstraction was accorded European American/negative acts and Asian/positive acts). To summarize, the cultural cues activated either Asian or American cultural frame of mind in the participants in accordance with their BII level, which influenced their LIB behavior in such a way that the majority of the participants perceived ethnic Asians as an ingroup. To be discussed next are limitations of the current study which might have lead to limited support for the hypotheses.

Limitations

Survey fatigue. Survey fatigue is likely to occur when surveys include loads of questions and require a long time to complete (Porter, Whitcomb, & Weitzer, 2004). Participants may become tired, impatient, or sleepy in the process of doing a questionnaire. The current study requires participants to complete an online survey of around 180 questions with some of them being open-ended. It took on average 20 to 25 minutes to finish the survey. It is very likely that most participants believed the survey was too long. That might explain why a total of 375 people had accessed the survey links but only 220 had actually completed the questionnaires. It is also possible that some

participants got distracted in the process of completing a long survey, which might have influenced how they responded to the questions.

Testing. Sometimes the design or procedures of an experiment may skew the results of a study. For example, in experiments which involve testing and retesting, participants may become more sensitive or grow “smarter” to the test material (Babbie, 2004). In the current study, participants were asked to view photos of people in action and describe the observed acts. They either saw the same actions performed by Asian actors first or by European Americans first (for the purpose of counterbalancing). It is likely that participants remembered the scenarios which appeared earlier and that might affect their interpretations of the same scenarios to show up later but performed by different actors. For instance, some participants put down exactly the same descriptions for the first and the second showing of the same scenario in different photo sets.

Measuring Instrument – BII Measure. The measurement of participants’ BII level might be more accurate if both the cultural distance and conflict scales of Bicultural Identity Integration Scale – Version 1 (Benet-Martinez & Haritatos, 2005) had been used simultaneously. The conflict scale was omitted from the current study because it was not demonstrated to be “reliable” in one of the recent studies conducted by Benet-Martinez and colleagues (Cheng, Lee, & Benet-Martinez, 2006). It might be a better approach to have included both scales first and then determine to retain the measurements of either or both after reliability tests are conducted on both.

It is worth mentioning that the median BII score of the participants in the study was 4.25. Strictly speaking, the majority of the participants were supposedly high BII

individuals although a median split was conducted to divide them into the high and low BII groups. Therefore, it is likely that the BII measuring scale adopted in this study did not accurately tap into the construct of bicultural identity integration among the participants. In future research, to better assess the extent of integration between the culture of origin and the mainstream culture among participants, it is viable to include additional instruments that measure acculturation by taking into account the bidimensional aspects of acculturation (i.e., the development of heritage and mainstream cultural identities are independent of each other, indicating the possibility of bicultural or multicultural identity integration; Berry, 1997; Ryder, Alden, & Paulhus, 2000). Such instruments include, but are not limited to, the Asian Values Scale (Kim, Atkinson, & Yang, 1999), General Ethnicity Questionnaire (Tsai, Ying, & Lee, 2000), and Asian American Multidimensional Acculturation Scale (Chung, Kim, Abreu, 2004). In addition, it is also feasible to use as an acculturation index the different aspects of behavioral acculturation such as use of language, friendship pattern, and lifestyle choices, information gathered directly by participant self-reports (Lee, Yoon, Liu, & Hsin-Tine, 2006).

Selection Bias. The fact that most of the participants in the current study were students taking ethnic (Asian) language courses at UT Austin at the time of recruiting is problematic and prone to selection bias. That is, the finding that overall the participants in the current study perceive ethnic Asians as an ingroup might have been a result of their higher attachment to the culture of origin, which could have inspired them to take ethnic language classes in the first place. In addition, self-selection bias was likely to be at

work as well because the majority of the participants in this study were those that were willing to leave their names and email addresses to the researcher during the study promotion sessions in different classes and student organization meetings. Perhaps they were a special group of students who were more interested in experimental studies in general or who were more sympathetic to graduate student researchers.

External Validity. The above descriptions about selection bias and self-selection bias makes it problematic to generalize the study results to other groups of bicultural Asian Americans of different age groups, at different universities, and in various regions in the States. In addition, it is possible that UT Austin is a big University with a multicultural environment. Students of different cultural backgrounds are encouraged to learn about their ethnic heritage. Their understanding about culture of origin might not be shared by their counterparts on other campuses, let alone Asian Americans in non-academic environments.

Ingroup Preference

Although the study results have rendered only partial support to the hypotheses, two intriguing findings have been found and discussed so far -- Asian American bicultural participants perceived ethnic Asians as an ingroup, and low and high BIIs participants were exactly opposite in their use of language abstraction in describing observed actions. Yet, another inspiring side finding had emerged in the way that low BII and high BII participants expressed their *ingroup preference*. A systematic pattern stood out from the following four observations. First, when low BII participants were in the *American* cultural meaning frame, they encoded *positive* actions more abstractly.

Second, when low BII participants were in the *Asian* cultural meaning frame, they encoded *negative* actions more abstractly. Third, when high BII participants were in the *Asian* cultural meaning frame, they encoded *negative* actions more abstractly. Fourth, when high BII participants were in the *American* cultural meaning frame, they encoded *positive* actions more abstractly. That is, from the first and fourth observations, it is concluded that when they were in the American cultural meaning frame, both high and low BIIs encoded positive actions more abstractly. From the second and third observations, it is concluded that when they were in the Asian cultural meaning frame, both high and low BIIs encoded negative actions more abstractly. Interpretations and implication of this interesting pattern are provided next.

Intergroup Bias in Cultural Context. Intergroup bias is one of the most prevalent phenomena observed in intergroup interactions (Struch & Schwartz, 1989). Intergroup bias usually takes the form of ingroup favoritism, which according to Allport (1964) is psychologically primary. Preferential or favorable treatment to ingroups with or without the complementary phenomenon of outgroup derogation is enough to incur prejudice between groups. Interestingly, a close examination of the data revealed that the bicultural participants in the current study displayed intergroup bias either through ingroup favoritism or outgroup derogation depending on the level of bicultural identity integration and the manipulated Asian or American cultural priming.

Again, based on the assumptions of BII and cultural frame switching, the bicultural participants in the current study would switch between two culturally based interpretative paradigms. When interpreting observed social behaviors, high BIIs would

use cultural knowledge in a prime-consistent manner and low BIIs would behave just the opposite. In the current study, high and low BII participants displayed intergroup biased attitude in a systematic pattern such that when their American cultural frame was activated, they expressed ingroup preference by engaging in ingroup positivity or ingroup enhancement (i.e., they encoded positive actions more abstractly), whereas they displayed ingroup preference by resorting to outgroup derogation or outgroup negativity when they were thinking within the Asian cultural interpretative paradigm (i.e., they encoded negative actions more abstractly, see Figure 6). This systematic pattern coincides with the propositions regarding differences in self- and group-enhancement as a psychological process in the Western and Eastern cultures found in cultural psychological literature.

The East Asian self is a collectivistic *we-I*, interdependent and interrelated with ingroup members. The emphasis is that individuals should know their respective roles and act in accordance with the requirements of the ascribed roles (Heine, 2001). The European American *I-self* is independent and autonomous (Heine & Lehman, 1997). The independent self is characterized by motivation to enhance individual selves. In their drive for the cultural ideal of independence and autonomy, they are prone to attach positive internal attributes to themselves. Oftentimes they think of themselves in unrealistically positive terms (Greenwald, 1980; Markus & Kitayama, 1991). On the other hand, the interdependent self, being a relational entity, is defined in terms of its relations with other people (Heine & Lehman, 1997). Instead of being overly optimistic about themselves, the interdependent selves characteristic of East Asian culture tend to engage in self-criticism and strive for self-improvement (Heine & Lehman, 1995).

Different perceptions and definitions of self lead to divergent evaluation of groups and group dynamics in the two cultures. It is more common for people in Western than Eastern cultures to derive positive self-image and meet the need for self-enhancement through viewing one's ingroup more favorably than outgroups (Chen, Brockner, & Katz, 1998).

In an experiment setting, Heine and Lehman (1995) investigated whether cultural differences in self-enhancement biases of individuals could be generalized to perceptions of groups. In their study, Japanese students representative of East Asian cultures and European Canadian students, representative of Western cultures were asked to evaluate one of their family members, themselves, and their own universities. The results showed that Japanese students rated all targets less positively, indicating that people in Eastern cultures have lower desire not only for self-enhancement but also for group-serving bias or ingroup favoritism. In a cross-group comparative study investigating how people of different cultures react to the social-cognitive stereotype content model, Fiske and Fiske (2007) uncovered one cross-cultural difference among the student samples from seven European and three East Asian countries. Unlike participants from the European countries, those from the three Asian cultures did not categorize their own reference groups in the most positive clusters of the stereotype content model, implying cultural differences in enhancement bias.

In a field study that provided a natural setting for between-group competition to induce intergroup bias, Snibbe, Kitayama, Markus, and Suzuki (2003) tested how students from individualistic American culture and interdependent Japanese culture

evaluated their ingroups or outgroups in two football games. The results showed that European American university students evaluated their ingroups more positively on both the individual-level measures (positive and negative traits regarding students of their attending universities) and the group-level measures (various dimensions of the universities) while Japanese students showed no clear signs of positive ingroup bias.

As mentioned earlier, people enhance their self-image by identifying with the perceived positive distinctiveness of their ingroups. It is reasonable that people aspire to be members of groups that reflect favorably on them (Cialdini, Borden, Thorne, Walker, Freeman, & Sloan, 1976). Conversely, people tend to distance themselves from unsuccessful groups (Snyder, Lassegard, & Ford, 1986) or groups of lower status (Wright, Taylor, & Moghaddam, 1990). If it is true that people in Asian cultures are less prone to group enhancement bias, group success or failure should be of less significance to them compared to people in Western cultures. In their study, Chen, Brockner, & Katz (1998) confirmed that people of collective-primacy, compared to those of individual-primacy, tend to protect their failing ingroups via ingroup bias. In their study, participants (one group from China and the other from the United States) were placed into different conditions of individual success, individual failure, ingroup success and ingroup failure. It was in the individual success/ingroup failure condition that the two groups of participants differed the most in their evaluations of ingroups. Comparing between the two groups, Chinese participants evaluated their ingroup more positively than the American counterparts even in the ingroup failure condition. Comparing within groups, in the ingroup failure condition, American participants rated their ingroup least

favorably. On the other hand, Chinese participants managed to express their ingroup bias via outgroup derogation and have rated the outgroup the lowest in performance under the ingroup failure condition.

Significantly, the bicultural participants in the current study expressed their intergroup bias or ingroup preference in a pattern that closely reflects the differences in self-and group enhancement between individualistic and collectivistic cultures as described in the previous paragraphs. That is, relatively speaking, individual-primacy individuals are more prone to self-and group-enhancement (ingroup positivity) than collective-primacy individuals. As shown in the results, the bicultural participants in the current study engaged in ingroup positivity when their American cultural frame was activated (i.e., when they were the independent selves). On the other hand, in the study of Fiske and Fiske (2007), collectivistic individuals did engage in outgroup derogation, which was particularly salient in the study of Chen et al. (1998) described above when the collectivistic Chinese participants felt the need to “protect” their failing ingroup. The bicultural participants in the current study displayed outgroup negativity when their Asian cultural frame was activated (i.e., when they were the interdependent selves). They might wish to protect their ingroups from being projected *negatively* (i.e., they encoded negative actions performed by European Americans more abstractly than when the same negative actions were performed by Asian actors). To the contrary, when their American cultural frame was activated, the bicultural participants in the current study resorted to ingroup positivity to express ingroup preference, indicating their inclination to engage in self-and group-enhancement.

The current study has yielded two intriguing results (bicultural Asian American perceive ethnic Asians as an ingroup, and low and high BIIs are opposite in their use of language abstraction when describing observed positive or negative actions performed by either Asians or European Americans) and one side finding (bicultural Asian Americans express their ingroup preference either by ingroup positivity or outgroup negativity depending on the cultural meaning frame adopted). It is capable of contributing to the scholarship of culture, intergroup bias, and communication behaviors in the following ways.

Implications for Acculturation/Assimilation Research. Bicultural Asian Americans may explicitly identify themselves as Americans or part of the dominant culture. The result of the current study, which employed an implicit measure to examine the ingroup/outgroup orientation of bicultural Asian Americans, showed that bicultural participants perceived ethnic Asians as their ingroup, contrary to the common belief that immigrants who stay in America longer are closer to reaching complete identificational assimilation to the mainstream culture. In his study on the formation of ethnic self-identities of children of immigrants, Rambaut (1994) pointed out that being born in the United States was the strongest predictor of adopting an American identity. In the current study, 108 of the 160 participants indicated themselves as American-born, while the rest of them migrated to the U.S. prior to age 12 (the 1.5 generation). In other words, the demographic background of the current bicultural participants made their Asian ingroup orientation all the more surprising. This could be an indication that the American mainstream culture as a group has set an impermeable boundary for the

immigrants and their descendents. As mentioned earlier, bicultural Asian Americans are treated as perpetual foreigners (Cheryan & Monin, 2005; Min & Kim, 2000), and forever “them” regardless of their citizenship (Gerstenfeld, 2002). The impermeable boundary has thwarted the motive of individual immigrants for upward social mobility. Ultimately, bicultural Asian Americans might come to terms with their ethnic background from the realization that they will never be accepted as completely “American” (Min & Kim). Therefore, the results of the current study have provided yet another support for the argument that it is difficult to apply the classic assimilationist model to the realistic acculturation situation of immigrants in America.

Implication for Using Implicit Measures to Test Biased Attitudes in Cross-cultural Communication Research. Some scholars have argued that self-serving bias is universal and suggested that the findings that people in individualistic cultures and collectivistic cultures differ in their self-enhancement motive might be a methodological artifact (Sedikides, Gaertner, & Toguchi, 2003). They have also pointed out that using explicit measures and asking participants to rate groups along positive and negative traits might suppress their tendency to engage in self-or group-enhancement due to social desirability, impression management, or the ethical obligation to be modest. However, by resorting to priming and implicit measurement of participants’ language use and communication behaviors, the current study has provided strong support for the possibility of investigating unobtrusively the cultural variability in different psychological processes, such as prejudiced attitudes, cultural frame switching in

bicultural individuals, and differential engagement in enhancement for Eastern interdependent selves and Western independent selves.

Directions for Future Research

When conducting related research in the future, the phenomenon of ingroup positivity, outgroup negativity, and self- and group-serving bias may become a more prominent focus. An attempt can be made to contribute to the comparative literature of self-enhancement between East and West with studies which examine human communication behaviors. Second, it is possible to build on the results of the current study and acknowledge *a priori* the perceived Asian ingroup orientation for bicultural Asian Americans, and hypothesize their intergroup linguistic bias behaviors accordingly. Third, it might be of empirical value to use scenarios depicting stereotypical Asian or American behaviors rather than actions of generally positive or negative valence with no implication of ethnic stereotypes. As mentioned earlier, in most of the LIB studies, the ingroup/outgroup demarcation is very clear from the outset (e.g., rival sports teams, Maass et al., 1989; competing interest groups, Maass et al., 1996). In these situations, LIB is better explained by *ingroup-protection motives*. However, to test intergroup bias of biculturals which normally entails no open conflicts or competitions between the two groups (i.e., bicultural individuals' ethnic groups and the mainstream cultural group), and the two groups are very likely to share stereotypic beliefs, both positive and negative, about each other, LIB effect should be better explained by *differential expectancy* (Maass et al., 1995).

A simple way to look at *ingroup protective motive* is that by describing positive ingroup and negative outgroup behaviors in more abstract terms, individuals protect ingroup members and self by associating themselves with the good deeds and dissociating themselves from the negative acts (Maass, 1999; Maass et al., 1996). Following the perspective of *differential expectancies*, people are inclined to describe both ingroup and outgroup behaviors in more abstract language if the behaviors are consistent to the stereotypical expectations of observers (Maass, 1999, Maass et al., 1995). In their experiments testing the two mechanisms, Maass and colleagues pointed out that differential expectancies tended to better explain LIB phenomenon in situations when ingroup and outgroup shared *both* positive and negative stereotypic beliefs about each other (Maass, 1999, Maass et al., 1996, Maass et al., 1995) as in the situation of the current study. As such, to better detect LIB effect in bicultural Asian Americans' attitudes towards ethnic Asians and the mainstream American culture, it might be helpful to design the stimulus photos from the perspective of differential expectancies (i.e. testing whether an observed action is consistent or inconsistent with the stereotypical expectations of the observer).

Chapter 6: Conclusion

Studies show that bicultural individuals engage in cultural frame switching according to contextual demands. Different environmental cues can activate different cultural frames internalized in bicultural individuals (Hong et al., 2000, 2003). In the experiments of Hong and colleagues, biculturals adopted American cultural frame when primed with western cultural icons and they made internal attributions for observed actions. When primed with Asian cultural icons, they switched to their Asian cultural frame and made external attributions in interpreting observed actions. Adding to the phenomenon of cultural frame switching in biculturals, Benet-Martinez and colleagues proposed that levels of cultural identity integration moderated biculturals' capabilities to switch between cultures (Benet-Martinez et al, 2002; Benet-Martinez & Haritatos, 2005). In their experiments, individuals who had higher degrees of bicultural identity integration displayed culturally consistent behaviors and made internal attributions when primed with a western cultural icon. In contrast, individuals who had lower degrees of bicultural identity integration reacted in a culturally incongruent manner and made external attributions when primed with a western cultural icon.

The hypotheses of the current study were drawn from the research findings of cultural frame switching, BII, and the LIB proposition that people use more abstract language terms to describe positive ingroup and negative outgroup behaviors. However, from the results of the current study, group identity and the concomitant biased ingroup/outgroup attitudes have turned out to be a much more complicated component than other elements in the cognitive domains (e.g., making attributions). As illustrated in

the series of studies by Hong and Benet-Martinez, certain cognitive and psychological process of a bicultural might be modified as a result of changing cultural meaning systems. However, the current data showed that a bicultural's ingroup identity and intergroup bias remained robust although cultural frame switching had apparently taken place as manifested in the systematic and oppositional language abstraction levels used by the high and low BII bicultural participants to describe observed actions under different cultural priming conditions.

Although the hypotheses have received only partial support, the current study has yielded two intriguing findings. First, Asian American biculturals perceived ethnic Asians as an ingroup. Second, low and high BII biculturals were exactly opposite in their use of language abstraction within the same cultural priming condition, and the levels of language abstraction were exactly reversed for either low BIIs or high BIIs between different cultural priming conditions, which was taken as a manifestation of the impact of cultural priming and BII levels. In addition, a side finding showed that high and low BII biculturals differed in their ways of expressing ingroup bias depending on which of the cultural meaning systems internalized in them was activated. More research should be conducted to test the replicability of the current findings. Each established finding brings to a new stage the exploration of ethnic identity and communication behaviors of bicultural or multicultural individuals, which has been under studied in the fields of intracultural communication and intercultural communication.

Appendix A: Chinese Cultural Icons





Appendix B: American Cultural Icons





Appendix C: Example Photo Sets Depicting Socially Desirable Behavior

a. Socially Desirable Behaviors (Asian Protagonist)



b. Socially Desirable Behaviors (European American Protagonist)



Appendix D: Example Photo Sets Depicting Socially Undesirable Behavior

a. Socially Undesirable Behavior (Asian Protagonist)



b. Socially Undesirable Behavior (European American Protagonist)



Appendix E: Examples of Open-ended Questions

a. Positive Behavior (Asian Protagonist)



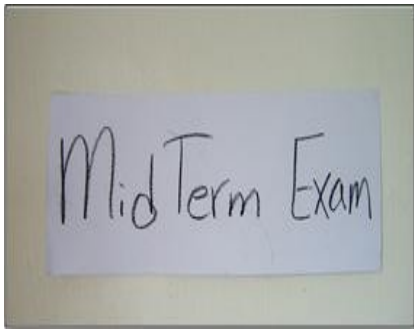
In the photo set above, Takeko.....

b. Positive Behavior (European American Protagonist)



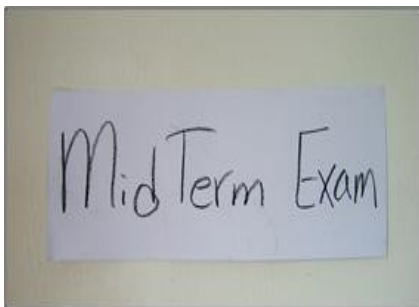
In the photo set above, Lisa.....

c. Negative Behavior (Asian Protagonist)



In the photo set above, Zhong.....

d. Negative Behavior (European American Protagonist)



In the photo set above, Larry.....

Appendix F: Examples of multiple choice questions

a. Positive Behavior (Asian Protagonist)



1. Which of the following sentences best describes the episode illustrated in the photos above?

- a. Sakura (the woman in light blue) gives candy to another woman at the bus stop.
- b. Sakura shares candy with another woman at the bus stop.
- c. Sakura likes people.
- d. Sakura is friendly.

b. Positive Behavior (European American Protagonist)



1. Which of the following sentences best describes the episode illustrated in the photos above?

- e. Ann (the woman in green jacket) gives candy to another woman at the bus stop.
- f. Ann shares candy with another woman at the bus stop.
- g. Ann likes people.
- h. Ann is friendly.

c. Negative Behavior (Asian Protagonist)



12. Which of the following sentence best describes the episode above?

- a. Koji finds a wallet on the street and puts it in his bag.
- b. Koji takes the money found on the street.
- c. Koji wants the money found on the street.
- d. Koji is greedy.

b. Negative Behavior (European American Protagonist)



12. Which of the following sentence best describes the episode above?

- e. Robert finds a wallet on the street and puts it in his bag.
- f. Robert takes the money found on the street.
- g. Robert wants the money found on the street.
- h. Robert is greedy.

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